INTERNET EDUCATION: EXPLORING THE BENEFITS AND CHALLENGES OF WEB-BASED EDUCATION

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ON

EXAMINING THE BENEFITS AND CHALLENGES OF WEB-BASED EDUCATION

SEPTEMBER 26, 2002

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C O N T E N T S

STATEMENTS

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(III)

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THURSDAY, SEPTEMBER 26, 2002

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:02 a.m., in room SD–430, Dirksen Senate Office Building, Hon. Paul Wellstone, presiding.

Present: Senators Wellstone and Enzi.

OPENING STATEMENT OF SENATOR WELLSTONE

Senator WELLSTONE. The HELP Committee will come to order. I will put my full statement in the record, and I want to get started.

Is this microphone on? No? I was apologizing for having to be in and out because of a hearing in the Senate Foreign Relations Committee on Iraq in a few minutes. I then went on and I explained that to me, education is a foundation of opportunity, and I also frankly think, as John Dewey did, that it is related to functioning democracy. We need citizens involved in the work of democracy.

I think K through 12 is a silly definition of education. It should be pre-K through 65, and many of you that are involved with distance learning are working with a lot of the nontraditional students who I think have become the traditional students in that I think they have really essentially become the majority. And so I just want to thank you for your very fine work, and I think that the key question is going to be to make sure that with distance learning we have the highest quality education without onerous regulations that put you at a disadvantage. We have to find the balance here.

Distance learning is terribly important. I speak to you as someone who very much believes in your mission and what you do. I just think we have to make sure that we also achieve intellectual rigor in education. And I don't think any of you, from looking at some of your testimony, disagree with me.

Let me make introductions. Cornelia Ashby is Director of Education, Workforce and Income Security Issues at the U.S. General Accounting Office. GAO does some exceptional work, and I would like to thank you. Again, without going through a whole introduction that would go a long time, I think that Ms. Ashby's testimony is especially important for us because she directs studies that in-

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volve higher education, child welfare, child support enforcement, and adult and vocational education issues. So I think your testimony will be extremely important.

Frank Mayadas—and I hope I have pronounced your name the right way. I want to welcome Dr. Mayadas, who is program director at the Alfred P. Sloan Foundation, which has done just fabulous work. It is a foundation that has made immense contributions, and your focus on areas of online education, globalization of industries, industry studies and career choice in technical fields, again, I think will be of immense benefit to us.

And then, if I could, Senator Enzi, I apologize. I have to be in and out because of Iraq and a hearing that I have got to go to, but I want to give a special introduction to Steve Shank before you go to Mr. Mendenhall. He founded and is now chancellor of Capella University, which is based in Minneapolis. Steve began his career as an attorney with Dorsey and Whitney. There is much to go through in terms of some of his recognition as an outstanding CEO, but I just will say that under Steve Shank's leadership, Capella has received accreditation by the Higher Learning Commission of the North Central Association of Colleges and Schools. He won the Tekne Award, 2001 Tekne Award, which recognizes technology innovators who have made lasting contributions to technology development. And I especially want to thank him for stepping forward when so many LTV workers—around 1,300 taconite workers on the range—were laid off. Steve offered $500,000 in scholarships to the families, and for that, as a Senator from Minnesota, I am especially grateful to you. Welcome, Steve Shank.

[The prepared statement of Senator Wellstone follows:]

PREPARED STATEMENT OF SENATOR WELLSTONE

I want to thank everyone for being here and I am apologizing in advance that I will have to leave exactly at 10:30 for Iraq hearings. I have always said that education is not just for people aged 5 through 21 but really should be about people who are aged 0 to 65. There are very few innovations that have done more for non-traditional learners that internet education. Whether it is because it addresses the problems of travel, child care, work or other schedule concerns, on-line education has opened up higher education to so many people who would not otherwise have had access to an advanced degree.

I am particularly hopeful that distance learning can and will benefit rural and economically distressed areas. I have met so many people who live in the Iron Range of Minnesota, for example, who have lost there jobs due to the LTV Mining Company closing. They tell me that they want to stay in their communities, but they also do not see any opportunities there. They are forced to decide between leaving their homes and where they grew up, and advancing their career. On-line education will offer many of them a solution. I thank all of you for what you are doing to reach traditionally underserved populations. In particular, I want to thank Steve Shank, whose Company offered $500,000 in scholarships to workers and their families who were negatively impacted by the LTV closing. His offer was very generous and I will talk more about his work in my introduction of him.

I also am very cognizant of the importance of ensuring the quality of distance learning programs. We need to be very cautious about making changes to the law to be sure that nothing is done to diminish the quality of programs supported by Federal financial aid. We have representatives of high quality programs here today, but there are many programs that are not as good. It will be extremely valuable for this Committee to hear from all of you about how we can help grow distance learning programs, which have great potential, while at the same time ensuring that programs are the highest quality. Your advice will be quite useful as we approach the Higher Education Act Reauthorization next year. Thank you again for being here.

Senator ENZI. Thank you, Mr. Chairman. I am very excited about these hearings today, and I am glad that we are able to do this. The issue of distance learning is extremely important, and we have a person here that represents the Western Governors University, Mr. Robert W. Mendenhall.

I was at a Western Interstate Commission on Higher Education meeting in San Francisco when the Western Governors University was announced. I was impressed to learn that it would be a coalition of several different Western States so that people in rural areas would be able to get a college education and even degrees from home. Now, the Western Interstate Commission on Higher Education, WICHE, is composed of not only some nonuniversity people like myself, but also most of the university presidents, and as they announced, the biggest whisper that was going around the room is how will we charge for out-of-State tuition?

[Laughter.]

But they have worked through all of that, and we are very pleased today that Robert W. Mendenhall, the president and chief executive officer of the Western Governors University, can join us to present his unique perspective on online learning. The Western Governors University is a unique institution that was founded and supported by 19 Governors, including Wyoming's own Jim Geringer, as well as 24 leading corporations and foundations. It currently offers degrees at the associate's, bachelor's, and master's level in business, information technology, and in education.

I am especially impressed by the Western Governors University Teachers College which allows paraprofessionals and uncertified teachers to gain teaching credentials. Mr. Mendenhall has more than 20 years' experience in the development, marketing, and delivery of technology based on education. Among his many accomplishments, he was previously the director of IBM's K–12 Education Division, as well as the founder, president, and CEO of Wicat Systems, Incorporated, a leading provider of computer-based curriculum, instructional management and testing and technology-based training for both Government and industry. And I thank you, Mr. Mendenhall, for being a part of this hearing today. This will probably be a very basic hearing that will have some real core information that we need to be able to cover this topic as we get into next year's reauthorization of the Higher Education.

[The prepared statement of Senator Enzi follows:]

PREPARED STATEMENT OF SENATOR ENZI

Thank you Mr. Chairman. I would like to begin by thanking Senator Kennedy and his staff for agreeing to hold this hearing. I am pleased that we have been able to work together to investigate the potential that distance learning holds for our nation's students.

As some of you may know, I have a very personal interest in the issue of distance education. I saw how effective it can be because my wife, Diana, received her masters degree in adult education by taking online classes through the University of Wyoming while living here in Washington. After witnessing the high quality of the course work, the responsiveness to students' needs, and the technological flexibility that enabled Diana's experience, I have become a strong advocate for distance learning.

In an effort to make distance education more accessible to post-secondary students, I was pleased to sponsor S. 1445, the Internet Equity and Education Act of 2001 in the Senate. This important legislation, which is based on the findings of the bipartisan Web-Based Education Commission on which I served, will accomplish the critical goal of giving more students the opportunity to pursue post-secondary education by expanding access to financial aid for students who choose to further their education through distance education.

I am especially pleased to be able to sponsor this legislation at a time when schools like the University of Wyoming are experiencing record breaking enrollments in their distance education programs. As some of you may know, the University of Wyoming has the daunting task of being the only 4-year institution providing access to higher education for students spread across 98,000 square miles that make up the State of Wyoming, not to mention those who come from across the nation and the globe. Since the University of Wyoming launched "Online UW" in 1999 class enrollments and course offerings have increased dramatically. It is my hope that Congress will be able to modernize the Higher Education Act so that distance education programs like those at the University of Wyoming will be able to expand even further to serve more interested students.

I hope this hearing will allow this Committee to take a look at a variety of issues surrounding distance education as we move towards the reauthorization of the Higher Education Act. I look forward to working with my colleagues to find ways to hold distance education programs to the same financial aid accountability standards as those offered on a traditional semester or quarter basis while ensuring that Federal student aid programs are free from fraud and abuse.

Thank you Mr. Chairman.

Senator WELLSTONE. And Senator Enzi has been as engaged in this issue and has legislation, and I think will be definitely one of the key Senators working on this issue.

Ms. Ashby, with your indulgence, can I ask Mr. Shank to start off just because I can't stay very long? And I apologize to the other panelists.

Mr. Shank?

STATEMENTS OF STEPHEN SHANK, J.D., CHANCELLOR, CAPELLA UNIVERSITY; CORNELIA M. ASHBY, DIRECTOR, EDUCATION, WORKFORCE AND INCOME SECURITY ISSUES, U.S. GENERAL ACCOUNTING OFFICE; A. FRANK MAYADAS, PH.D., PROGRAM DIRECTOR, ALFRED P. SLOAN FOUNDA-TION; AND ROBERT W. MENDENHALL, PRESIDENT, WESTERN GOVERNORS UNIVERSITY, SALT LAKE CITY, UT

Mr. SHANK. Thank you, Senator Wellstone and Senator Enzi. I would express my appreciation for the opportunity to discuss with the committee the importance of online education in the context of the reauthorization.

I would like to address three points. One is the role of online education in extending access particularly for the working adults who are so important to our social success; I would like to talk about the educational effectiveness of this instructional format; and, finally, a brief look at the future prospects for continuing innovation in technology-enabled teaching and learning.

Online education has been one of the most promising and exciting innovations in higher education. It has become a widely used and accepted instructional method for both distance programs and on-campus programs. Eighty-four percent of American 4-year colleges and universities offer distance courses, much of that online. Currently, there are 2.2 million students enrolled in these distance courses.

We at Capella University like to think that we are an example of what is going on here. We are recently accredited 4-year university—or recently accredited virtual university, I meant to say. We serve 6,500 working adult students pursuing undergraduate and graduate degree programs residing in all 50 States. And for these students, Federal financial aid is very important. Fifty-five percent of our students do use Federal financial aid because we are extending opportunities to people who need both economic assistance and educational support.

The working adult population, as Senator Wellstone mentioned, is critically important in terms of providing educational opportunities, and we are talking about both the social and the economic success of our society.

There are millions of people who have continuing education needs in the form of work-related knowledge requirements, changes imposed by technology all the time. It is almost a majority of Americans now that are enrolled, adults in the higher education programs, and that will soon become a majority. This is a population that has been underserved by campus-based education. We are talking about busy people who don't have 2 hours a night 3 nights a week to drive back and forth.

The other thing that might be of interest to the committee, we estimate that there are currently 120,000 students, again, primarily adults, enrolled in fully online degree programs. We estimate that this will grow steadily throughout the decade and we will get to a point where there will be in the range of 1.5 million enrollments by 2010. So this is not a minor trend in education.

It is not only access that leads adults to choose to study online. For many people, this becomes their preferred method of study because it is so effective in addressing the way adults learn. It allows

for experience-based active learning, high levels of interaction in the classroom, and also the ability to have real interaction on a professional level with peers and with faculty. This is an effective form of education.

Senator Wellstone and our State of Minnesota has had a lot of vision in recognizing the role of technology as a bridge that can bring economic opportunity and educational opportunities to people in out-State Minnesota, particularly in economically impacted areas. We are proud of the role we can play. We think the opportunities are immense.

We absolutely agree that we need to talk not only about extending access, but talk about standards and talk about quality. Because if we could clear the air on the standards issue, the ability to take this powerful form of education to its full potential will be really tremendous.

There is a ton of academic research which shows that well-designed online learning produces academic outcomes as effective as traditional campus-based methods. Our plea would be, as we talk about educational effectiveness, that we focus on the real results, the learning outcomes and that we move away from our sort of shop-worn tendency to focus on educational inputs like contact hours or seat time or educational processes.

This is a form of education which takes place on a computer platform. We can measure what goes on, we can analyze results, and we can use it as basis for continuing improvement of education.

My final point would have to do with what does the future look like for continuing education. I would say there is good news here if we have a supportive Federal policy environment. Educators know a lot about delivering effective learning online. Now we face the real prospect of expanding public access to broadband connectivity. The numbers show about one-quarter of American households now have access to broadband. What does this mean? It means that educators can incorporate powerful teaching tools, like rich media, embedded assessments, and computer-based assessments. This is potentially very powerful. It gives us the tools to improve access and quality not only for the adults I have been talking about, but for the younger students, and we really need to bear in mind over the next 10 years it is the younger students that are the most technology savvy, and they expect that the educational system will begin to look more like the real-life experience using the Internet.

I would close with a plea. I think it is clear that the potential of Web-based learning is very strong and very powerful. That is what the Commission on Web-based Learning found and recommended. The current Title IV rules are overly restrictive as it impacts high-quality online education.

We would hope that Congress in its role in fostering healthy educational innovation will create appropriate financial aid policies which allow the development of quality education, which does put the focus on real outcomes, which balances the need for integrity—and we absolutely agree with that—the need for quality with the very real need to make better progress in improving educational access in America.

Thank you for this opportunity.

Senator WELLSTONE. Thank you, Mr. Shank. Excellent testimony.

[The prepared statement of Mr. Shank follows:]

PREPARED STATEMENT OF STEPHEN G. SHANK

Mr. Chairman and Members of the Committee, thank you for this opportunity to testify about the importance of online learning in our system of higher education. I am Steve Shank, Chancellor and Founder of Capella University.

SUMMARY

Online learning is one of the most exciting and promising developments in higher education over the past decade. This educational format leverages the power of technology to enrich learning and create new educational opportunities. Millions of students are enrolled in online courses offered by the full range of higher education institutions from virtual universities to traditional universities and public and private four and 2-year colleges. Online courses extend educational access to working adults, who have been previously underserved, and enrich instruction for traditional campus based students. A substantial body of research demonstrates that web based instruction produces quality learning outcomes comparable to traditional programs. As one of the pioneers in online education, Capella University can attest that we are just now beginning to realize the enormous potential of online education. In the future we can expect ongoing innovation and a further diffusion of technology-based learning which will improve access and quality across the entire spectrum of education in America. This is vital to the achievement of a well educated society and a productive workforce. The re-authorization of the Higher Education Act provides a critical opportunity for Congress to promote the continued growth of online education. We look forward to working with the committee and the Department of Education on the re-authorization of the Higher Education Act to ensure that the student financial aid rules appropriately accommodate this important component of our educational system.

BACKGROUND ON CAPELLA

Based in Minneapolis, Minnesota, Capella is a fully online, regionally accredited university. Our mission is to use modern technology to create educational access for working adults who need to advance their education, but who might not otherwise be able to do so because of job or family commitments. We serve 6,500 online degree students who reside in all 50 States. Capella offers Bachelor of Science completion programs in Business and Technology, and an array of Master's and doctoral programs in the fields of Education, Human Services, Information Technology, Management and Psychology.

Capella is accredited by The Higher Learning Commission, member of the North Central Association of Colleges and Schools. Throughout our university's development, our experience has been that the accreditation process has provided helpful and effective challenges to us with respect to developing our institutional capabilities and assuring effective learning outcomes for students.

Fifty-five percent of our students receive Federal student financial aid as a result of Capella's participation in the Department of Education's Distance Learning Demonstration Program which waives certain statutory and regulatory provisions relating to Title IV funding.

Our online courses provide a good example of the types of web-based instructional formats now being used throughout higher education. They are faculty-led, highly collaborative, and based on an active learning approach grounded in the extensive research about effecting adult education. Capella's students are challenged to apply their learning immediately to their responsibilities at work. The typical course is divided into eight to ten weekly learning units, delivered over a standard 12 week quarter term.

The e-course room is the central point for interaction among students and the instructor. The courses are led by qualified faculty instructors who have the terminal degree in their field and extensive experience teaching in both traditional and online higher education environments. The faculty instructor serves as a content expert, guide to the development of expected academic and professional capabilities and facilitator of discussion among students. The average faculty to student ratio for a course is 1:12.

The weekly course materials may include offline reading, online materials and streaming media, case studies and problem-based team assignments. Every student is required to participate substantively in the week's assignments, which may in-

clude required discussions and/or team projects. The student participation occurs via asynchronous postings in a "threaded" (or schedule-independent) discussion format. This structure enables active participation in a social learning environment, where students can process, integrate and reinforce learning with their peers. At the same time, it creates the scheduling flexibility which is so important to giving working adults real access to higher education.

Each learning unit specifies clearly established unit learning objectives. We are midway through the development of a competency-based educational model. The unit learning outcomes must be related to specified professional competencies. We require student demonstration of the achievement of the learning outcomes and related competencies. An outcomes assessment requirement is built into the curriculum at the course and program levels. Generally applicable assessment guidelines are provided to the faculty to insure consistency of learning outcomes.

OVERVIEW OF DISTANCE LEARNING

The 10-year period of our university's development has been one of fruitful innovation in technology-enabled education. There has been steady growth in the use of online instruction by institutions of higher education. The Internet has become a quasi-universal information and educational media—54 percent of Americans are now online.

This includes a growing Internet usage by ethnic minority Americans. Capitalizing on this important development, educational institutions across the country—both traditional and non-traditional—have implemented online instructional formats which are highly interactive and which effectively enable achievement of the intended learning outcomes.

Web-based education has grown to a point where it is an accepted method of academic instruction in both distance and on-campus programs. Eighty-four percent of 4-year colleges reported that they expect to offer distance education courses in 2002. The Web-based Education Commission notes that 2.2 million students are expected to enroll in distance courses, up from 710,000 in 1998. Traditional "brick and mortar" institutions frequently find that when they offer an online version of a campus-based course, on-campus students compete for the right to enroll. The trend in distance education technologies is toward internet-based technologies. In 1995, 22 percent of institutions offered Internet courses using asynchronous delivery. By 1998, this grew to 60 percent.

Of particular relevance for student financial aid policy, we estimate that there are currently 120,000 learners enrolled in fully-online degree programs. These enrollments are expected to grow steadily through 2007 where it is estimated that 10 percent (or roughly 1.5 million) of higher education enrollments will be online-only.

Another important trend is the continuing growth of adult enrollments in higher education. The adult segment has grown much more rapidly than the traditional college age student population. In 2002, adults account for 43 percent of all enrollments in undergraduate programs. It has been projected that by 2010, there will be 6.8 million students who are 25 and over.

These trends—increased Internet use, growth in the quantity and quality of online education, and increased enrollment of adult students—converge to address compelling economic and social needs for improved access to education. Department of Education statistics clearly demonstrate that higher levels of educational achievement result in higher income for all groups regardless of gender, race or ethnicity. Moreover, in our knowledge-based economy, millions of working individuals face continuing education needs which are driven by such forces as technology changes, global competitive pressure, and mandatory job-related continuing education.

MEETING THE EDUCATIONAL NEEDS OF WORKING ADULTS

I am emphasizing the educational needs of working adults, because it is this population which is primarily enrolled in fully online degree programs. There are several compelling reasons why adult students are increasingly choosing to study online.

The first reason is access. Online education solves the logistical problems faced by working adults who have multiple commitments and responsibilities, and limited free time and scheduling flexibility. A very typical example is a student living in Chicago. She has a full time job and is the mother of 2 children. She spent 7 years earning an Associates degree in a traditional program. She then tried to continue her education in a traditional Bachelor's program, but had to drop out because of commuting hassles. Now, 2 years after enrolling online, she's about to complete her Bachelors degree.

Beyond the benefit of educational access, online learning may, in fact, become the preferred method of learning for many. Adults benefit from an education model based on participation, mutual respect, and small group work. They need socialization with peers and engaged faculty, and education that is timely and experience-centered. Online learning offers the flexibility to address these varied educational needs.

This learning environment can be particularly welcoming to many students from a variety of diverse backgrounds. When participating online, personal attributes such as age, gender, and ethnicity do not get in the way of how one is perceived by colleagues and faculty. Capella University is very proud that our minority enrollment figures meet or exceed those of most traditional universities.

As an example of the potential of online education to address socially important lifelong learning needs, I am very proud that in our home State of Minnesota our university has been able to respond to a challenge from Senator Wellstone to create educational opportunities for dislocated Iron range workers in northern Minnesota. Senator Wellstone has been a great champion of the working adult. In response to his challenge, Capella has allotted $500,000 in scholarships and grants for the benefit of dislocated Iron range workers and their families. In connection with this initiative, Senator Wellstone facilitated cooperative relationships between our university and community colleges in rural Northern Minnesota. This, in turn, has led us to relationships with many community colleges across the country that want to train their faculty in online instruction and to give their alumni better access to opportunities to complete a 4-year degree. While continuing to work, these students live in communities which are often not conveniently served by traditional higher education programs.

EDUCATIONAL EFFECTIVENESS OF ONLINE EDUCATION

I have discussed the benefits of online learning. What about the educational effectiveness of this model of education?

Research on distance and online learning is being conducted at universities throughout the world. There have been a wealth of research findings that demonstrate that well designed online instruction produces learning outcomes comparable to traditional classroom-based instructional approaches.

We should expect that online learning meet the same standards of educational effectiveness as traditional learning models. In assessing educational effectiveness, the focus should be on achievement of intended outcomes as opposed to the more widely used approach of merely evaluating educational inputs such as seat time or contact hours. Online learning provides an excellent environment for demonstrating the achievement of both knowledge and performance-based learning outcomes because the learning is delivered on sophisticated information infrastructure. At our university, all of our programs and courses must specify learning outcomes what learners must know and be able to do upon completion of the instruction. Those learning outcomes must be measurable, with assessment embedded as a core element of the courses.

We can demonstrate quality educational outcomes. Capella's 3-year persistence rate of 61 percent is comparable to traditional programs for adult learners. We intend to benchmark our learning outcomes against outcomes of traditional programs. However, there is currently insufficient data available for educational outcomes for the working adult population as a discrete student segment. This is something the higher education community needs to address. As we gain additional years of experience with the Title IV student financial aid program, we expect that our default rate will remain much lower than the national norm.

KEY ISSUES FOR THE HIGHER EDUCATION ACT RE-AUTHORIZATION

A. The Importance of Financial Aid

Federal financial aid is as important to creating educational access as is web-based educational delivery. While the vast majority of adult students are employed, the added expense, the deferred income, and time commitments related to their education impose additional economic burdens. Research on adult student persistence toward degree completion has shown that ability to pay (including financial aid) has a direct effect on adult students' completion of their education. Fifty-five percent of online students at our university rely on Federal financial aid.

Unfortunately, the current Title IV financial aid rules penalize students studying online. It is critical that the Title IV rules be modified to permit participation by quality online education programs. The Distance Education Demonstration Project, which provides a limited exemption to the Title IV prohibition against online education, will expire on June 30, 2004. As a participant in the Demonstration Project,

we respectfully request that the selected waivers granted under the demonstration project be extended until the re-authorization of the Higher Education Act is completed.

B. The Need for Modification of the Title IV 50 Percent Rules to Accommodate Quality Online Education Programs

The "50 Percent Rules" contained in the Title IV student financial aid legislation require institutions participating in Title IV programs to offer at least 50 percent of their instruction in a classroom based instructional format. Under these rules institutions which offer more than 50 percent of their instruction in an online format are excluded from Title IV financial aid participation.

Congress adopted the 50 Percent Rules in the Higher Education Amendments of 1992. At that time a primary Congressional focus was to address financial aid abuse, much of which related to correspondence schools offering vocational programs. The 50 Percent Rules were adopted before the development of faculty-led interactive online education and before this educational format became an accepted method of academic instruction.

In the Higher Education Amendments of 1998, Congress recognized the potential of online education. Congress mandated a Distance Learning Demonstration Project to facilitate an evaluation of financial aid delivery to students enrolled in online or other distance education programs. Pursuant to the Demonstration Project, the Secretary of Education was authorized to grant waivers of the 50 Percent Rules and other Title IV restrictions to permit Title IV financial aid participation by online and other distance learning institutions. The Secretary has granted waivers of the 50 Percent Rules to approximately 15 institutions and consortium groups.

As a fully online institution, Capella University has participated in the Federal student financial aid program since 1998 and subsequently due to the 50 Percent Rule waivers. The Demonstration Program will expire on June 30, 2004. After that expiration date, institutions that deliver instruction primarily in an online format will no longer be eligible for Title IV financial aid participation without Congressional action.

The Fifty Percent Rules have the effect of discriminating unfairly against students who choose to pursue their education at online institutions. They also penalize those schools that specialize in online instruction. The application of these provisions is anomalous and inconsistent. It depends on whether the institution offering the online program offers a majority of its instruction in the traditional classroom teaching format and on the Department's specific methodology for calculating the fifty percent requirement. The rules do not generally prohibit financial aid to students pursuing a degree program online. They only prohibit participation by institutions which primarily teach online.

As online instruction becomes more and more important in higher education, the current 50 Percent Rules will have several counter productive effects. First, they will unfairly penalize the category of academic institutions, such as Capella University, which specialize in online education. This discriminatory effect is unrelated to quality assurance concerns. Because these institutions specialize in online instruction, they have developed a substantial body of experience and expertise in delivering high quality online education. Such institutions also tend to be among the most innovative in higher education in continuing to improve and extend online educational delivery capabilities. Second, the programming choices made by institutions which offer both online and traditional instructional programs will be artificially constrained by the rigidity of the 50 Percent Rule requirements, no matter what the needs of their students may be. These counter productive effects have no relationship to the originally intended objective of preventing correspondence program type abuse.

C. Reform of Fifty Percent Rule

The Federal student aid program has achieved great progress over the past 10 years in reducing abuse and defaults. No serious institution wants to reopen the door to the types of financial-aid abuse experienced previously. The policy objective should be to refine the financial aid participation rules to accommodate quality online education programs while retaining appropriate safeguards against abuse. This can be done by creating a limited exception to the 50 Percent Rules to permit participation by quality online educational programs. We look forward to working with the Committee during the re-authorization of the Higher Education Act on this issue.

At present an institution must be accredited by an accrediting agency recognized by the Secretary. We believe that any reform to the 50 Percent Rules should include the following key concepts: (a) The online instructional program is offered by an in-

stitution authorized to grant academic degrees at the level of AAS or higher; (b) The courses are faculty led; (c) The courses require a specified level of learner interaction with the class per measurement period; and (d) The institution regularly assesses course and program learning outcomes, including persistence and graduation rates. Such outcomes are reported annually to the Secretary.

A limited exception to the 50 Percent Rules should be flexible enough to allow participation by legitimate online degree programs. At the same time, such an exception would limit participation to academic programs that are faculty led and which require measurable student participation in courses. The requirement of institutional accreditation by a recognized accrediting agency provides appropriate assurance as to faculty credentials, institutional capability and student support services. The accrediting bodies have developed specific guidelines for evaluating the quality of online education programs.

These core concepts would serve Federal policy interests issues of promoting quality, choice and innovation in higher education while preserving safeguards against abuse.

<center>CONCLUSION</center>

I would like to conclude with some comments about the future outlook for technology-delivered learning. This is particularly important since the Higher Education Act re-authorization will influence higher education over the next decade.

Higher education is not a static world. It's experiencing exciting innovation. Over the next 10 years we will see ongoing technology-enabled innovation which will have a profound effect on educational quality and access, and will benefit all sectors of American education from K–12 through graduate and professional schools.

Educators know a lot about delivering effective online instruction. We can now look forward to increasing public access to high band-width connectivity via DSL and cable modems. Increasingly, this will enable educators to incorporate such instructional enhancements as rich media, computer-based simulations, learning communities and embedded assessments. These instructional tools will be used in both in purely online programs and in traditional campus-based programs. They will broaden educational opportunities for both adult students and younger students, who are the most technology-savvy segment of our population and who expect that the web will be integrated into their educational experience.

We will see expanding cooperation among educational institutions as they seek to leverage their technology resources. I've mentioned our growing relationships with 2-year colleges. We are now beginning to explore opportunities to help K–12 schools take better advantage of technology-enabled education.

Web-based education is effective. It is playing an increasingly important role in improving educational access and quality in America. We urge Congress to craft student financial aid rules in the re-authorization legislation which accommodate this valuable instructional model and which also accommodate ongoing educational innovation. Such innovation is squarely within the tradition of educational experimentation and adaptation in response to changing social and economic needs in our society.

Thank you for this opportunity to appear before the Committee. I am pleased to answer any questions that the Committee may have.

Senator WELLSTONE. Ms. Ashby?

[Pause.]

Senator ENZI. [presiding]. Someday we will be able to turn those on by computer.

[Laughter.]

If that one is not working, maybe we can trade a microphone here for the moment. There you go.

Ms. ASHBY. Senator Enzi, I appreciate the opportunity to testify on distance education and its implications for the student financial aid programs authorized in Title IV of the Higher Education Act. Distance education is not a new concept, but in recent years, it has assumed markedly new forms and greater prominence. At the same time, it has posed challenges with regard to the prevention of fraud and abuse in the Title IV programs.

Title IV aid is an important consideration for many students who take distance education courses. For the 1999–2000 school year,

about 40 percent of the students who took their entire program through distance education applied for Title IV aid, and 31 percent received such aid.

As you know, your committee asked us to assess the current status of distance education. Today, I will briefly discuss the early results of our work. Specifically, I will provide information on the characteristics of distance education students and postsecondary schools that offer distance education; Title IV aid issues related to distance education; the use of distance education in minority-serving institutions—that is, historically black colleges and universities, Hispanic-serving institutions, and tribal colleges; and, last, the role of accrediting agencies in reviewing distance education programs.

About 1.5 million of 19 million postsecondary students took at least one distance education course in the 1999–2000 school year. Compared to other students, the distance education students tend to be older and are more likely to be employed full-time and attending school part-time. They have higher incomes and are more likely to be married. Most students take distance education courses at public institutions, with more taking courses from 2-year schools than from 4-year schools. The Internet is the most common mode of delivery for providing distance education.

Several distance education issues related to Title IV have surfaced. One such issue, known as the 50-percent rule, involves students who attend institutions that provide half or more of their course work through distance education classes or who have half or more of their students enrolled in such classes.

When institutions exceed the 50-percent threshold, their students become ineligible for Title IV aid. Our initial work indicates that students enrolled in about 20 Title IV-eligible institutions may face this problem soon.

Another issue, the 12-hour rule, involves the amount of instructional time that must be provided for students to qualify for Title IV aid. The 12-hour rule defines each week of instruction in a program that does not have a standard course length as 12 hours of instruction, examination, or preparation for examination. Some distance education courses do not necessarily fit this model.

While our work involving the use of distance education at minority-serving institutions is not yet completed, the preliminary data indicate that MSIs, and, more specifically, minority students at MSIs, make less use of distance education than students at other schools. We will send questionnaires to officials at all three MSI groups to gain a better understanding of their use of distance education technology.

In the meantime, the available data show that about 6 percent of undergraduates students at HBCUs are enrolled in at least one distance education course, and about 1 percent took their entire program through distance education. These rates are lower than those for students at nonMSIs.

About 51 percent of the undergraduates at Hispanic-serving institutions are Hispanic, but they comprise only about 40 percent of the undergraduate students enrolled in distance education classes at those institutions. We were unable to develop data on the extent that tribal college students use distance education. However, offi-

cials at several tribal colleges told us that distance education is an appealing way to deliver college courses to potential students who live in communities dispersed over a large geographical area.

Accrediting agencies play an important role in reviewing distance education programs. They and the Department of Education are the gatekeepers with respect to ensuring quality at postsecondary institutions, including those that offer distance education. We plan to look at how accrediting agencies are reviewing distance education programs and the standards they are using. We also plan to do work that will enable us to identify any improvements needed in Education's oversight of accrediting agencies.

In conclusion, distance education has grown rapidly over the last few years, and our work indicates that it might present new educational opportunities for students. However, Congress and the administration need to ensure that changes to the Higher Education Act and regulations do not increase the chances of fraud and abuse in the Title IV programs. The work we have yet to complete for our final report will examine in more detail whether additional actions are needed to enhance access to higher education while maintaining the integrity of the Federal financial aid programs as it relates to distance education.

This concludes my statement, and I would be happy to answer any questions.

Senator ENZI. Thank you very much.

[The prepared statement of Ms. Ashby follows:]

PREPARED STATEMENT OF CORNELIA M. ASHBY

Mr. Chairman and Members of the Committee: I appreciate the opportunity to testify on issues related to distance education[1] and implications for the Federal Government's student financial aid programs. Increasingly, the issues of distance education and Federal student aid intersect. About 1 in every 13 postsecondary students enrolls in at least one distance education course, and the Department of Education (Education) estimates that the number of students involved in distance education has tripled in just 4 years. As the largest provider of financial aid to postsecondary students, the Federal Government has a considerable interest in distance education.

Mr. Chairman, as you know, your Committee and the Ranking Member and two members of the House Committee on Education and the Workforce, asked us to assess the current status of distance education. We will issue our final report in September 2003. Today, I will discuss the early results of our work. My testimony will provide information on (1) the demographic characteristics of distance education students and the institutional characteristics of postsecondary schools that offer distance education; (2) Federal student financial aid issues related to distance education; (3) the use of distance education at Minority Serving Institutions;[2] and (4) the role of accrediting agencies in reviewing distance education programs. A major part of my testimony today is based on our analysis of data from the National Postsecondary Student Aid Study (NPSAS),[3] an Education database covering more than

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[1] The Higher Education Act defines distance education as an educational process where the student is separated in time or place from the instructor.

[2] We are examining three types of Minority Serving Institutions: Hispanic Serving Institutions, Historically Black Colleges and Universities, and Tribal Colleges. Hispanic Serving Institutions are defined as having at least 25 percent of its full-time equivalent students Hispanic, of which no less than 50 percent are low-income individuals. Historically Black Colleges and Universities are defined as, among other things, any historically Black college or university that was established prior to 1964 and whose principal mission was, and is, the education of Black Americans. A tribally controlled college or university is an institution which is formally controlled, or has been formally sanctioned, or chartered, by the governing body of an Indian tribe or tribes.

[3] The NPSAS is conducted approximately ever 3–4 years by the National Center for Education Statistics in the Department of Education. It is a nationwide survey designed to collect demo-

Continued

19 million postsecondary students. We did our work from April through September 2002 in accordance with generally accepted government auditing standards.

A decade ago, when distance education was largely the province of correspondence schools, concerns about fraud and abuse by some schools led the Federal Government to place restrictions on, among other things, the percentage of courses an institution could provide by distance education and still qualify to participate in the Federal aid programs authorized under Title IV of the Higher Education Act (HEA). Now, however, with distance education growing rapidly and becoming more a part of mainstream higher education through courses taught by Internet or videoconferencing, the Congress is reexamining these and other distance education rules to deternnine if changes are warranted. The Congress has also expressed an interest in knowing how Minority Serving Institutions are using distance education technology. Minority Serving Institutions offer postsecondary opportunities to nearly 2 million students and many of these students are first generation college students.

IN SUMMARY

Overall, about 1.5 million out of 19 million postsecondary students took at least one distance education course in the 1999–2000 school year. These 1.5 million distance education students differ from other postsecondary students in a number of respects. Compared to other students, they tend to be older and are more likely to be employed full-time and attending school part-time. They also have higher incomes and are more likely to be married. Most students take distance education courses at public institutions, with more taking courses from 2-year schools than from 4-year schools. The Internet is the most common mode of delivery for providing distance education.

Many students who take distance education courses participate in Federal student aid programs. About one-third of undergraduates and graduate students who take all their course work through distance education receive Title IV financial aid. As distance education continues to grow, several major aspects of Federal laws, rules, and regulations may need to be reexamined. Certain rules may need to be modified if a small, but growing number of schools are to remain eligible for student aid. Students attending these schools may become ineligible for student aid because their distance education programs are growing and may exceed statutory and regulatory limits on the amount of distance education an institution can offer. Other issues involve how to account for student participation in distance education and differences in student aid between some distance education students and classroom students.

In general, students at Minority Serving Institutions use distance education less extensively than students at other schools. For example, undergraduates at Historically Black Colleges and Universities use distance education at a lower rate than students who attend non-Minority Serving Institutions. Also, undergraduate Hispanic students attending Hispanic Serving Institutions use distance education less often than other students at these institutions.

Accrediting agencies play an important role in reviewing distance education programs. They, and Education, are the "gatekeepers" with respect to ensuring quality at postsecondary institutions—including those that offer distance education programs. The HEA allows accrediting agencies to develop their own standards for ensuring the quality of education provided by the institutions they accredit. It also gives Education the authority to recognize those accrediting agencies it considers to be reliable authorities on the quality of education provided by the institutions they accredit. Critical issues include how well the accrediting agencies and Education are carrying out their responsibilities and whether changes are needed in HEA.

The work that we have yet to complete for our final report will examine in more detail whether additional actions are needed to enhance access to higher education while maintaining the integrity of the Federal student aid programs as it relates to distance education.

BACKGROUND

Distance education is not a new concept, but in recent years, it has assumed markedly new forms and greater prominence. Distance education's older form was the correspondence course—a home study course generally completed by mail. More

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graphic information on postsecondary students, as well as information on how postsecondary students fund their education. The most recent NPSAS covers students attending over 6,000 Title IV eligible institutions during the 1999–2000 school year. NPSAS defines distance education as courses delivered off campus using live, interactive television or audio; prerecorded television or video; CD-ROM; or a computer-based system such as, the Internet, e-mail, or chat rooms. NPSAS does not cover correspondence students.

recently, distance education has increasingly been delivered in electronic forms, such as videoconferencing and the Internet. Some of these newer forms share more features of traditional classroom instruction. For example, students taking a course by videoconference generally participate in an actual class in which they can interact directly with the instructor. Many postsecondary schools have added or expanded electronically-based programs, so that distance education is now relatively common across the entire postsecondary landscape. We estimate that in the 1999–2000 school year, about 1.5 million of the 19 million students involved in postsecondary education took at least one electronically transmitted distance education course. Education reports that an estimated 84 percent of 4-year institutions will offer distance education courses in 2002.

While newer forms of distance education may incorporate more elements of traditional classroom education than before, they can still differ from a traditional educational experience in many ways. For example, Internet-based distance education, in which coursework is provided through computer hookup, may substitute a computer screen for face-to-face interaction between student and instructor. Chat rooms, bulletin boards, and e-mail become common forms of interaction. Support services, such as counseling, tutoring, and library services, may also be provided without any face-to-face contact.

As the largest provider of student financial aid to postsecondary students (an estimated $52 billion in fiscal year 2002), the Federal Government has a substantial interest in the quality of distance education. Under Title IV of the HEA, the Federal Government provides grants, work-study wages, and student loans to millions of students each year. For the most part, students taking distance education courses can qualify for this aid in the same way as students taking traditional courses.

Differences between distance education and traditional education pose challenges for Federal student aid policies and programs. For example, in 1992, the Congress added requirements to the HEA to deal with problems of fraud and abuse at correspondence schools—the primary providers of distance education in the early 1990's.[4] These requirements placed limitations on the use of Federal student aid at these schools due to poor quality programs and high default rates on student loans. Such problems demonstrate why it is important to monitor the outcomes of such forms of course delivery. In monitoring such courses, the Federal Government has mainly relied on the work of accrediting agencies established specifically for providing outside reviews of an institution's educational programs.

CHARACTERISTICS OF DISTANCE EDUCATION STUDENTS AND INSTITUTIONS THAT OFFER DISTANCE EDUCATION

Our analysis of the NPSAS showed that the estimated 1.5 million[5] postsecondary students who have taken distance education courses have different demographic characteristics when compared with the characteristics[6] of postsecondary students who did not enroll in distance education. These differences included the following.

Distance education students are older. As figure 1 demonstrates, students who took all their courses through distance education tended to be older, on average, when compared to other students.

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[4] Title IV of the HEA makes a distinction between students who enroll in correspondence courses and those who enroll in telecommunications courses. For example, students enrolled in correspondence courses cannot be considered more than half-time students for student financial aid purposes, even though they may be taking a full credit load.

[5] Of the 1.5 million distance education students, 1.26 million were undergraduates and 272 thousand were graduate students. In total, there were an estimated 19.2 million postsecondary students, or 16.5 million undergraduates and 2.7 million graduate students in the 1999–2000 school year.

[6] When we cite differences in student characteristics between distance education students and students who did not take any distance education courses, the differences are statistically significant at the 95 percent confidence level.

Figure 1: Distance education students are older

Distance Education Students Are Older

Average Age

Undergraduate students　　　　Graduate students

■ Took all distance education courses
□ Took no distance education courses
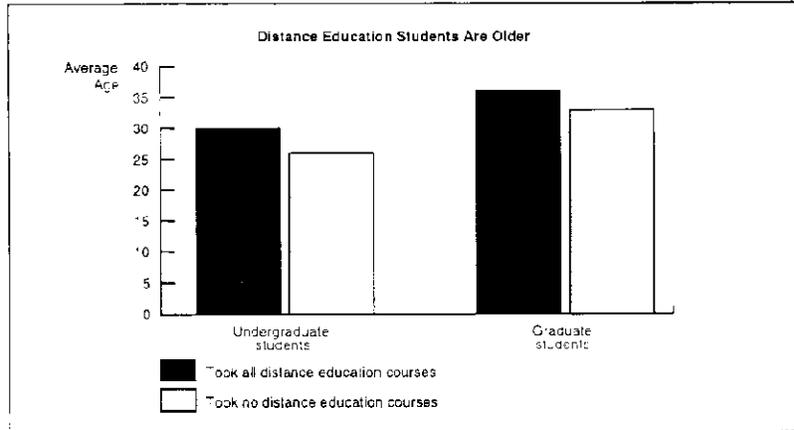
Distance education students are more likely to be married. Figure 2 shows that graduate and undergraduate students that took all of their courses through distance education are more likely to be married than those taking no distance education courses.

Figure 2: Distance education students are more likely to be married

Distance Education Students Are More Likely To Be Married

Percentage of married students

Undergraduate students　　　　Graduate students

■ Took all distance education courses
□ Took no distance education courses
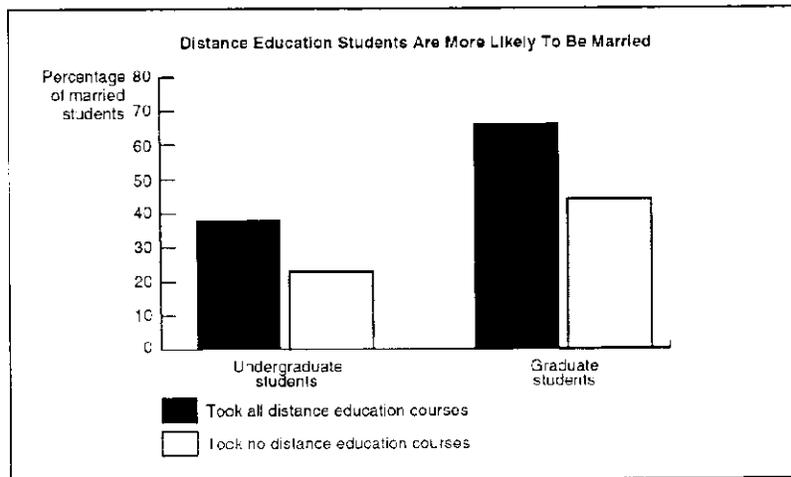
Undergraduates taking distance education courses are more likely to be female. Women represented about 65 percent of the undergraduate students who took all their courses through distance education. In contrast, they represented about 56 percent of undergraduates who did not take a distance education course. For graduate students, there was no significant difference in the gender of students who took distance education courses and those who did not.

Distance education students are more likely to work full-time. As figure 3 shows, a higher percentage of distance education students work full-time when compared to students who did not take any distance education courses. This difference was greatest among graduate students where about 85 percent of the students that took

all of their courses through distance education worked full-time compared to 51 percent of students who did not take any distance education courses.

Figure 3: Distance education students are more likely to work full-time
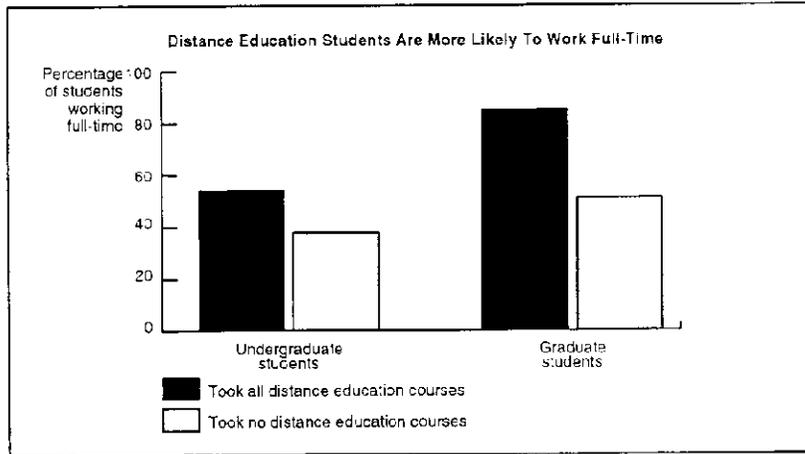
*Distance education students are more likely to be part-time students.* As might be expected, distance education students tend to go to school on a part-time basis. For undergraduates, about 63 percent of the students who took all their courses through distance education were part-time students while about 47 percent of the students who did not take any distance education courses were part-time students. This trend also occurred among graduate students (about 79 percent of those who took their entire program through distance education were part-time students compared with about 54 percent of those who did not take any distance education courses).

Distance education students have higher average incomes. Figure 4 shows that in general, graduate students that took distance education courses tended to have higher average incomes than students that did not take any distance education courses. We found similar patterns for undergraduate students.

Figure 4: Distance education students tend to have higher average incomes
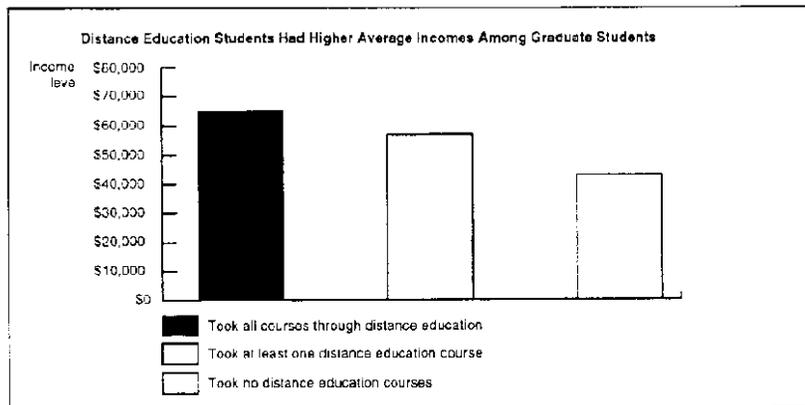
In addition to the demographic characteristics of distance education students, NPSAS provides certain insights on the characteristics of institutions that offer dis-

tance education programs.[7] Among other things, it provides data on the modes of delivery that institutions used to provide distance education and the types of institutions that offered distance education.

Public institutions enrolled the most distance education students. For undergraduates, public institutions enrolled more distance education students than either private non-profit or proprietary institutions. Of undergraduates who took at least one distance education class, about 85 percent[8] did so at a public institution (about 79 percent of all undergraduates attended public institutions), about 12 percent did so at private non-profit institutions (about 16 percent of all undergraduates attended private non-profit institutions), and about 3 percent did so at proprietary schools (about five percent of all undergraduates attended proprietary schools). For graduate students, public institutions also enrolled more—about 63.5 percent—distance education students than private non-profit or proprietary schools (32 and 4.5 percent, respectively). About 58 percent, 40 percent, and two percent of all graduate students attended public institutions, private non-profit, and proprietary schools, respectively.

Institutions used the Internet more than any other mode to deliver distance education. Postsecondary institutions used the Internet more than any other mode to deliver distance education. At the three main types of institutions (public, private non-profit, and proprietary[9]), more than half of the undergraduate students who took at least one distance education course did so over the Internet. Over 58 percent of undergraduate distance education students at public institutions used the Internet and over 70 percent of undergraduate distance education students at private non-profit and proprietary schools also used the Internet. Institutions that offered graduate programs also used the Internet as the primary means of delivering distance education courses. For graduate students who took at least one distance education class, 65 percent of students at public institutions used the Internet, compared with about 69 percent of students at private non-profit institutions, and about 94 percent of students at proprietary institutions.

Institutions enrolled the most distance education students in subjects related to business, humanities, and education. For undergraduates, about 21 percent of students who took their entire program through distance education studied business and 13 percent studied courses related to the humanities. This is similar to patterns of students who did not take any distance education classes (about 18 percent studied business and about 15 percent studied humanities). For graduate students, about 24 percent of students who took their entire program through distance education enrolled in courses related to education and about 19 percent studied business. Again, this is similar to patterns of graduate students who did not take any distance education classes (about 23 percent studied education and about 17 percent studied business).

GROWTH OF DISTANCE EDUCATION AFFECTS FEDERAL STUDENT AID POLICIES ON SEVERAL FRONTS

Federal student aid is an important consideration for many students who take distance education courses, although not to the same degree as students in more traditional classroom settings. Students who took their entire program through distance education applied for student aid at a lower rate than students who did not take any distance education courses (about 40 percent compared with about 50 percent), and fewer also received Federal aid (about 31 percent compared with about 39 percent). Nonetheless, even these lower percentages for distance education represent a substantial Federal commitment.[10]

A number of issues related to distance education and the Federal student aid program have surfaced and will likely receive attention when the Congress considers

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[7] The design for NPSAS involves selecting a nationally representative sample of postsecondary education institutions and students within those institutions. NPSAS data come from multiple sources and includes a limited amount of data on institutional characteristics. This information is useful in developing some limited insights on institutions that offer distance education programs.

[8] Of the 85 percent of undergraduate students who took at least one distance education course at a public institution, about 55 percent did so at 2-year or less institutions and 30 percent did so at 4-year institutions.

[9] Proprietary schools are for-profit postsecondary institutions. They can include traditional 2- and 4-year colleges and universities as well as trade and technical schools.

[10] Students who took their entire program through distance education courses received an estimated $763 million in Federal student aid in the 1999–2000 school year. Students who took at least one distance education course may have also received Federal student aid; however, the data sources used by NPSAS do not distinguish between aid awarded for distance education courses and traditional classroom courses.

reauthorization of the HEA or when Education examines regulations related to distance education. Among them are the following:

"Fifty percent" rule limits aid to correspondence and telecommunication students in certain circumstances. One limitation in the HEA—called the "50 percent rule"— involves students who attend institutions that provide half or more of their coursework through correspondence or telecommunications classes or who have half or more of their students enrolled in such classes. When institutions exceed the 50 percent threshold, their students become ineligible to receive funds from Federal student aid programs. As distance education becomes more widespread, more institutions may lose their eligibility. Our initial work indicates about 20 out of over 6,000 Title IV-eligible institutions may face this problem soon or have already exceeded the 50 percent threshold. Without some relief, the students that attend these institutions may become ineligible for student aid from the Federal Government in the future. As an example, one institution we visited already offers more than half its courses through distance education: however, it remains eligible for the student aid program because it has received a waiver from Education's Distance Education Demonstration Program.[11] Without a change in the statute or a continuation of the waiver, more than 900 of its students will not be eligible for student aid from the Federal Government in the future.

To deal with this issue, the House passed the Internet Equity and Education Act of 2001 (H.R. 1992) in October 2001. The House proposal allows a school to obtain a waiver for the 50 percent rule if it (1) is already participating in the Federal student loan program, (2) has a default rate of less than 10 percent for each of the last three years for which data are available, and (3) has notified the Secretary of Education of its election to qualify for such an exemption, and has not been notified by the Secretary that such election would pose a significant risk to Federal funds and the integrity of Title IV programs. The Senate is considering this proposal.

Federal student aid policies treat living expenses differently for some distance education students. Currently, students living off-campus who are enrolled in traditional classes or students enrolled in telecommunications classes at least half-time can receive an annual living allowance for room and board costs of at least $1,500 and $2,500, respectively. Distance learners enrolled in correspondence classes are not allowed the same allowance. Whether to continue to treat these distance education students differently for purposes of Federal student aid is an open policy question.

Regulations Relating to "Seat" Time. Institutions offering distance education courses that are not tied to standard course lengths such as semesters or quarters have expressed difficulty in interpreting and applying Education's "seat rules," which are rules governing how much instructional time must be provided in order for participants to qualify for Federal aid.[12] In particular, a rule called the "12-hour rule" has become increasingly difficult to implement. This rule was put in place to curb abuses by schools that would stretch the length of their educational programs without providing any additional instruction time. Schools would do this to maximize the amount of Federal aid their students could receive and pass back to the school in the form of tuition and fees. The rule defined each week of instruction in a program that is not a standard course length as 12 hours of instruction, examination, or preparation for examinations. Some distance education courses, particularly self-paced courses, do not necessarily fit this model. Further, the rule also produces significant disparities in the amount of Federal aid that students receive for the same amount of academic credit, based simply on whether the program that they are enrolled in uses standard academic terms or not. In August 2002, Education proposed replacing the 12-hour rule with a "one day rule,"[13] which would require one day of instruction per week for any course. This rule currently applies to standard term courses, and as proposed, it would cover, among other things, nonstandard term courses. Education plans to publish final regulations that would include this change on or before November 1, 2002. Some institutions that might provide non-

[11] "The Congress created the Distance Education Demonstration Program in the 1998 amendments to the HEA to study and test possible solutions to Federal student aid issues related to distance education. The program has authority to grant waivers on certain statutory or regulatory requirements related to distance education and Federal student financial aid programs, such as the 50 percent rule.

[12] Under HEA, a student must receive at least 30 weeks of instructional time in order to be considered a full-time student for financial aid purposes. For students operating under standard terms such as semesters, this is relatively easy to translate into semester hours. A full-time undergraduate attending a school that operated on the semester system, for example, would need to complete 24 semester hours to be considered a full-time student.

[13] "The Internet Equity and Education Act (H.R. 1992) includes a similar definition for a week of instruction.

standard distance education courses remain concerned, however, because Education has not identified how the "one-day rule" will be interpreted or applied.

In considering changes in policy that are less restrictive but that could improve access to higher education, it will be important to recognize that doing so may increase the potential for fraud if adequate management controls are not in place.

MINORITY SERVING INSTITUTIONS TEND TO USE DISTANCE EDUCATION LESS FREQUENTLY THAN OTHER SCHOOLS

While our work examining the use of distance education at Minority Serving Institutions (MSIs) is not yet completed, the preliminary data indicate that MSIs—and more specifically, minority students at MSIs—make less use of distance education than students at other schools. NPSAS includes data for a projectable number of students from Historically Black Colleges and Universities and Hispanic Serving Institutions, but it only includes one Tribal College. We plan to send a questionnaire to officials at all three MSI groups to gain a better understanding of their use of distance education technology. In the meantime, however, the available NPSAS data showed the following:

Students at Historically Black Colleges and Universities tend to use distance education to a lesser extent than non-MSI students. About 6 percent of undergraduate students at Historically Black Colleges and universities enrolled in at least one distance education course and about 1.1 percent took their entire program through distance education. These rates are lower than students who took at least one distance education course or their entire program through distance education at non-MSIs.

Hispanic students attending Hispanic Serving Institutions use distance education at a lower rate than their overall representation in these schools. About 51 percent of the undergraduates at Hispanic Serving Institutions are Hispanic, but they comprise only about 40 percent of the undergraduate students enrolled in distance education classes. This difference is statistically significant. Similarly, our analysis also shows that the greater the percentage of Hispanic students at the institution, the lower the overall rate of distance education use at that school.[14]

Since NPSAS includes data from only one Tribal College, we were unable to develop data on the extent that Tribal College students use distance education. However, our visits to several Tribal Colleges provide some preliminary insights. Our work shows that distance education may be a viable supplement to classroom education at many Tribal Colleges for a number of reasons. Potential students of many Tribal Colleges live in communities dispersed over large geographic areas—in some cases potential students might live over a hundred miles from the nearest Tribal College or satellite campus—making it difficult or impossible for some students to commute to these schools. In this case, distance education is an appealing way to deliver college courses to remote locations. Additionally, officials at one Tribal College told us that some residents of reservations may be place-bound due to tribal and familial responsibilities; distance education would be one of the few realistic postsecondary education options for this population. Also important, according to officials from some Tribal Colleges we visited, tribal residents have expressed an interest in enrolling in distance education courses.

EFFECTIVENESS OF ACCREDITING AGENCIES IS AN IMPORTANT DISTANCE EDUCATION ISSUE

The HEA focuses on accreditation—a task undertaken by outside agencies—as the main tool for ensuring quality in postsecondary programs, including those offered through distance education. The effectiveness of these accreditation reviews, as well as Education's monitoring of the accreditation process, remains an important issue.

To be eligible for Federal funds, a postsecondary institution or program must be accredited by an agency recognized by Education as a reliable authority on quality.[15] Education recognizes 58 separate accrediting agencies for this purpose, of which only 38 are recognized for Title IV student aid purposes. The 58 accrediting agencies operate either regionally or nationally, and they accredit a wide variety of

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[14] Hispanic Serving Institutions can have between 25 percent and up to 100 percent Hispanic students. Our analysis compares undergraduate Hispanic Serving Institutions with less than 50 percent Hispanic students and Hispanic Serving Institutions with 50 percent or more Hispanic students. Those institutions with 50 percent or more Hispanic students had a 4 percent participation rate in distance education; those institutions with less than 50 percent Hispanic students had a participation rate of 9.6 percent.

[15] Institutions or programs which have not yet been accredited by a recognized accrediting agency are also eligible to apply for Federal funds if Education has satisfactory assurance that the institution or program will meet the recognized accrediting agency's standards within a reasonable time. Such institutions or programs are said to hold "preaccreditation" status.

institutions or programs, including public and private, non-profit 2-year or 4-year colleges and universities; graduate and professional programs; proprietary vocational and technical training programs; and non-degree training programs. Some accrediting agencies accredit entire institutions and some accredit specialized programs, departments, or schools that operate within an institution or as single purpose, freestanding institutions.

The HEA and regulations issued by Education establish criteria under which Education will recognize an accreditation agency as a reliable authority regarding the quality of education.[16] The HEA states that accrediting agencies must assess quality in 10 different areas, such as curriculum, student achievement, and program length. Under the HEA, an accrediting agency is required to include distance education programs when assessing quality. In doing so, an accrediting agency must consistently apply and enforce its standards with respect to distance education programs as well as other educational programs at the institution.

Our analysis in this area is not as far along as it is for the other topics we are discussing today. We plan to review a number, of accreditation efforts to determine the way in which accrediting agencies review distance education programs. We expect that our work will address the following issues:

• *How well accrediting agencies are carrying out their responsibilities for reviewing distance education.* The HEA does not contain specific language setting forth how distance learning should be reviewed. Instead, it identifies key areas that accrediting agencies should cover, including student achievement and outcomes, and it relies on accrediting agencies to develop their own standards for how they will review distance education programs. We will look at how accrediting agencies are reviewing distance education programs and the standards that are being used.

How well Education is carrying out its responsibilities and whether improvements are needed in Education's policies and procedures for overseeing accrediting agencies. Under the HEA, Education has authority to recognize those agencies it considers to be reliable authorities on the quality of education or training provided. Accrediting agencies have an incentive to seek Education's recognition because without it, students at the institutions they accredit would not be eligible to participate in Federal aid programs. We will conduct work to identify what improvements, if any, are needed in Education's oversight of accrediting agencies.

In closing, distance education has grown rapidly over the past few years and our work indicates that distance learning might present new educational opportunities for students. Congress and the Administration need to ensure that changes to the HEA and regulations do not increase the chances of fraud, waste, or abuse to the student financial aid programs. At the request of this Committee, and members of the House Committee on Education and the Workforce, we will continue our study of the issues that we have discussed today.

Mr. Chairman, this concludes my testimony. I will be happy to respond to any questions you or other members of the Committee may have.

CONTACT AND ACKNOWLEDGMENTS

For further information, please contact Cornelia M. Ashby at (202) 512–8403. Individuals making key contributions to this testimony include Jerry Aiken, Neil Asaba, Kelsey Bright, Julian Fogle, Ellen Habenicht, Chris Hatscher, Jill Peterson, Stan Stenersen, and Susan Zimmerman.

RESPONSE TO QUESTIONS FROM COMMITTEE BY GAO

UNITED STATES GENERAL ACCOUNTING OFFICE,
WASHINGTON, DC 20518,
November 6, 2002.

Hon. EDWARD M. KENNEDY,
U.S. Senate,
Washington, D.C. 20510–6300.

DEAR MR. CHAIRMAN: Thank you for the opportunity to respond to additional questions for the September 26, 2002 hearing on distance education. If you have any questions concerning my responses, please feel free to contact me on (202) 512–8403, or my assistant director, Kelsey Bright, on (202) 512–9037.

Question 1. The GAO report provides great detail on the demographics of who is in distance education. One of the common arguments used over on the House side during their debate on H.R. 1992 was that distance education helps individuals in rural areas. Do you have any data supporting or disputing, this claim?

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[16] The regulations are contained in 34 CFR Part 602.

GAO Response 1. No, we do not. We used the National Postsecondary Student Aid Study (NPSAS) to develop data on the demographic characteristics of distance education students. While NPSAS has data on the characteristics of distance education students, it does not contain data on where distance education students reside (urban or rural).

For Tribal Colleges—many of which are located in rural settings—it appears that distance education may be a viable alternative to classroom education. Based on our visits to several such colleges, we found that some potential postsecondary students live in remote locations—away from the Tribal College making it difficult for them to attend classes offered on campus. For example, Diné College serves the residents of the Navajo Nation—a reservation that covers a geographic area of 26,000 square-miles. According to officials at Diné College, distance education could be one way to serve Diné's student population because of the large area that it covers.

Question 2. The issue of minorities participating in distance education has also been used as a means of promoting distance learning. The report indicates that minorities at minority institutions are not using this mode of learning. Do you have data on minority participation at other institutions?

GAO Response 2. As we reported in our written testimony, our preliminary analysis indicates that, in the 1999–2000 school year, minority students at Minority Serving Institutions (MSI) make less use of distance education than students at other schools. For example, students at Historically Black Colleges and universities tend to use distance education to a lesser extent than non-MSI students.

In contrast to the above, most black and Hispanic students at non-MSIs took distance education courses in proportion to their overall representation at these schools. As Table 1 shows, black undergraduates comprised 10.8 percent of the total population at non-MSIs and 13.2 percent of the students who took their entire program through distance education. This difference is not statistically significant. The only category for which there is a statistically significant difference is Hispanic undergraduate students, who made up 6.6 percent of the student population at non-MSIs, but only 3.8 percent of students who took all of their courses through distance education.

Table 1: Participation in distance education versus representation in student population at non-MSIs, by race

	% of Student Population (Confidence Intervals)	% of students who took their entire program through Distance Education (Confidence Intervals)	Statistically Significant Difference?
Undergraduate Students			
Black, non-Hispanic	10.8 (9.8-11.9)	13.2 (10.0-16.5)	No
Hispanic	6.6 (6.2-7.1)	3.8* (2.1-5.6)	Yes
Graduate Students			
Black, non-Hispanic	7.3 (6.5-8.0)	8.6 (5.2-12.0)	No
Hispanic	4.4 (3.9-4.9)	3.1 (.6-5.7)	No

*This estimated value differs to a statistically significant extent from the corresponding estimated value for the percent of student population.

Question 3. The amount of financial aid given to those in distance education programs is shown to be nearly $800 million. Does this amount include funds given to students attending institutions who are participating in the demonstration program?

GAO Response 3. We cannot determine the amount of funds given to students attending institutions that are participating in the Distance Education Demonstration Program. NPSAS is based on a methodology that involves a sample of about 1,000 (out of over 6,000) Title IV eligible institutions and a sample of over 60,000 students (out of about 19 million) students who attended those institutions. The sample results are then projected to the entire universe of postsecondary students who attended Title IV eligible schools. As could be expected, many of the 24 participating institutions in the Distance Education Demonstration Program were not selected as

part of the NPSAS survey. Therefore, it is not possible to determine through NPSAS the precise amount of Title IV funds that participating institutions received.

Question 4. Along the same lines do you have data that would provide us with a breakdown by institution type, of exactly where the financial aid is going? The report indicates that a majority of the students are at public institutions, I am just wondering if the Federal financial aid money follows this path.

GAO Response 4. Based on NPSAS data, in the 1999–2000 school year, of undergraduate students who received Federal financial aid and who took their entire programs through distance education, 76 percent attended public institutions. These students received 71 percent (approximately $415.8 million) of the total financial aid awarded to undergraduate students who took their entire programs through distance education. In the same year, and for the same group of students, 20 percent attended private not-for-profit institutions, and they received 25 percent (approximately $147.4 million) of the total financial aid awarded to undergraduates who took their entire programs through distance education. Lastly, 4 percent attended proprietary institutions, and received 4 percent (approximately $21.8 million) of the financial aid. See Table 2 below. Because the numbers of graduate students in the NPSAS sample for each type of institution was too small, we were unable to calculate similar statistics for graduate students.

Table 2: Undergraduate distance education students who received federal financial aid by type of institution

		Estimated Mean $ per Student	Estimated Number of Students	Percent of Students	Estimated Total Dollars Spent (in Millions)	Percent of Dollars
Undergraduate Students						
	Type of Institution:					
	Public	4,750	87,540	76%	415.8	71%
	Private not for-profit	6,438	22,900	20%	147.4	25%
	Proprietary*	5,390	4,040	4%	21.8	4%
	Total:		114,480		585.0	

*Although NPSAS data contained too few cases to make this projection directly, we were able to derive these proprietary data elements by using the total projection and subtracting the public and private not-for profit component projections.

Question 5. Your report indicates that lifting the 12-hour and 50 percent rules will have to be coupled with good management of institutions. Do you believe there is a way we can help promote this good management from the Federal level?

GAO Response 5. Yes, we believe that good management can be promoted from the Federal level. The 12-hour rule and the 50 percent rules were put in place to help safeguard Federal student aid funds for certain distance education programs. With the lifting of these rules, other safeguards will likely be needed. Using student loan default rates could be one means of attempting to control fraud and abuse. As an example, Senate Bill 1445 would allow institutions to have more than 50 percent of their classes as correspondence or telecommunication classes if they can maintain a cohort default rate of 10 percent or less for each of the most recent three fiscal years for which data are available. Also, as the Congress continues to hold executive agencies accountable for results of major Federal programs such as the student financial aid program, an emphasis on outcomes, such as student retention rates or program completion rates, could be another way to help assure the integrity of the Federal student aid programs. Additionally, as I discussed in my statement, the accrediting agencies play an important role in reviewing distance education programs and might offer another avenue to help ensure the integrity of the Federal student aid programs. Our future work on this assignment will focus on what improvements, if any, the Department of Education can make to promote good management and assure the integrity of Federal student aid programs as it relates to distance education programs. We plan to issue a report on the results of our work in September 2003.

Question 6. Obviously the 12-hour and 50 percent rules were put in place because of very real threats to our Federal financial aid system. Protecting the already limited resources should be our goal as well as ensuring quality. Would it be fair to say that based on the past experiences, that we should proceed with caution with respect to lifting the 50 percent and 12-hour rules?

GAO Response 6. The Congress imposed the 50 percent rules and Education developed the 12-hour rule in the early 1990's to deal with problems of fraud and abuse at certain correspondence schools. We believe that lifting or modifying either of these rules needs to be done in a way that maintains adequate management controls so the risk of fraud and abuse does not rise. Education's Distance Education Demonstration Program has issued waivers on the 50 percent rules to a number of institutions that participate in the Program. According to the Director, Distance Education Demonstration Program, about five or six of the participating institutions really need the waiver and several may need it in the future. Since, thus far, only a small number of Title IV eligible schools are having problems with the 50 percent rules, there may be time to evaluate alternative solutions to modifying the rules in a way that maintains integrity of the student financial aid programs.

Although GAO is not taking a position, at this time, on how to modify, the 50 percent rules, several options are available. Should the Congress decide to extend the Distance Education Demonstration Program in the next reauthorization of the Higher Education Act of 1965, the Program could continue to be one means of evaluating the effect of issuing waivers of the 50 percent rules to improve access to postsecondary education while maintaining adequate management controls to reduce the risk of fraud and abuse. We plan to conduct additional work at several of the participating institutions in the Program to gain a better understanding of what the preliminary results have been at institutions that have received the waiver for the 50 percent rules. We will discuss the results of our work in the report that we plan to issue next year. Senate Bill 1445 would also provide a means of modifying the rules. For example, it would revise the current rules that call for a telecommunications course to be considered a correspondence course if the sum of telecommunications courses and correspondence courses equaled or exceeded 50 percent of the total number of courses offered by the institution. It does so by stating that, in such instances, courses offered via telecommunications shall not be considered to be correspondence courses for an institution that (1) is currently eligible for the Federal student loan program and (2) has less than a 10 percent cohort default rate for each of the three most recent fiscal years for which data are available.

The 12-hour rule was a Department of Education regulation that was replaced by the "one-day rule" on November 1, 2002. However, whether a "one-day rule" will be an improvement over the 12-hour rule is uncertain because "one-day" has not been defined by Education.

Sincerely yours,

CORNELIA M. ASHBY,
Director, Education, Workforce and Income Security Issues.

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Senator ENZI. The next testimony is from Mr. Mayadas from the Sloan Foundation. Mr. Mayadas?

Mr. MAYADAS. Thank you, Senator Enzi. I appreciate the opportunity to be here.

Since late 1992, even before there was a commercial Internet, our foundation has had a program in what is now called online learning or e-learning, through which we have provided over $45 million to over 65 institutions of higher education. These and others who have voluntarily joined our consortium now in the past academic year enrolled about 500,000 students, and they offer over 400 full-degree and certification programs which can be accessed through the Sloan consortium website.

We at Sloan believe that online learning represents one of the most important developments of the past 100 years for higher education, for it affords access to quality education for many, many individuals who would, for reasons of proximity, age, or other circumstances, not have the opportunity. We plan to continue our support for this area.

The kind of online education I will be talking about is what I call the interactive model, that is, classes begin on a particular day with a class taught by a faculty member who interacts with individuals through a learning management system and interaction

with the instructor and other students is not incidental or occasional but continuous. The student-faculty ratio for these is about the same for online classes as it is for equivalent campus courses.

We think this model is particularly good because it resembles in some ways the kinds of quality elements that we associate with our campuses, for on campuses, we provide students with three things: we provide them with learning materials; we provide them with more, a professor; and, finally, we provide them with other students.

In most of our projects, these three elements—learning materials, the professor, and other students—are preserved for the off-campus learner as well. We believe that the kind of quality learning associated with campuses is now possible for everyone and available in a multiplicity of environments—the home, the desktop at work, hotel rooms, and quite likely airplanes as well. Such learning environments operate 24 hours a day, 7 days a week, though they generally begin and end on specific days.

Today, I just would like to touch on four topics: one, what is going on in the field; two, quality; three, workforce education; and then a short statement about policy recommendations.

Although much is reported about new kinds of learning organizations being made possible through online learning, most online education is, in fact, provided through our conventional campus-based organizations. For instance, the major State institutions and, Senator Enzi, in your own State, the University of Wyoming has a very active program to convert their excellent continuing education program into an online version.

In urban environments, we see hybrid or blended courses appearing alongside entirely online courses. In more rural environments, where learners are widely geographically separated, fully online courses are preferred. It is quite clear, however, that online education equally well serves the needs of rural as well as urban learners. We estimate that in the academic year just passed, our estimate is that 3 million learners enrolled in online courses intended for the off-campus population. This number does not include the much higher number of enrollments in traditional campus courses which have some kind of a Web component to them.

The for-profit education sector is growing. It is a small part of the total picture, but it is growing and will be important.

Quality. Many people ask just what kind of quality is there in online education. The answer, in my opinion, is this: over many years we have come to recognize that quality is not a constant, but it depends very much on the institution offering the degrees and courses. The quality of a particular community college may differ from that of a State university. The offerings from a State university may differ in quality from those of a private institution. Therefore, we at Sloan have adopted the following view of quality: the quality of the online offerings of an institution should be about the same as the traditional classroom on-campus offerings of the same institution. The appropriate comparison of a degree program being offered by any institution should, therefore, be with the equivalent or similar degree program being offered online.

To join Sloan's-C, or the Sloan Consortium, an institution must be accredited and must be able to assert and to demonstrate that

their online program is equivalent in quality to their traditional classroom version. We need not try and we do not try and meet any arbitrary standard of quality.

Just a short description of workforce education. We believe that online learning has a very significant role for our workforce. The model in each case that we have promoted is that we have organized a governing board for each project for workforce education with members from companies within the industry and unions representing the workers. The governing board sets curriculum standards and content in a general fashion. An educational institution then provides the courses online and provides the degree.

So, for example, our telecommunications project, called NACTEL, involved Verizon, SBC, Qwest, and Citizens on the company side and the CWA and IBEW on the workforce side. The education provider from this project is Pace University in New York, which has developed an online telecommunications associate's degree for telephone technicians. Students are located all across the country as far away as Hawaii and Alaska. Thousands have enrolled in the program, and some are now receiving their degrees.

The NACTEL experience has shown two other striking things:

About 40 percent of those enrolled in NACTEL are women—a surprise since women do not represent anywhere near that number in the existing workforce for this position. Their comments tell us that women see this as an opportunity to move to a higher-paying position, often moving away from dead-end office positions.

Another striking result has been the overall success rate of the learners who, on average, complete—90 percent of them are completing the rigorous curriculum at a 90-percent completion rate. The result is a clear indication of the desire and motivation of the learner population and of the quality, content, and services provided by Pace University.

We should think of these efforts as only a beginning. Industry-specific offerings are an important way to ensure workforce training and offered in asynchronous fashion, anytime, anyplace, they are a solution to the need for more family-friendly ways for workers to acquire education and training.

Just a word about policy. My overall recommendation here is that our experience with the interactive model of online learning shows that this way of teaching works and it works in many disciplines for many segments of our population. It enables quality education to reach out to vast numbers of people that otherwise would be denied education and training. The Government, whether in tuition support, fellowships, or support of training, should support quality online learning as it does traditional classrooms. Learning quality, not mode of delivery, should become the criterion for aid, recognition, and support.

Thank you.

Senator ENZI. Thank you very much.

[The prepared statement of Mr. Mayadas follows:]

PREPARED STATEMENT OF A. FRANK MAYADAS

My name is Frank Mayadas, I am a Program Director with the Alfred P. Sloan Foundation. Since late 1992, before there even was a commercial internet, our Foundation has had a program in what is now called online learning or eLearning, through which we have provided over $45 million in grant support to over 65 insti-

tutions of higher education. These institutions plus others who have voluntarily joined, are members of Sloan-C or the Sloan Consortium for Online Education. We estimate that approximately 500,000 learners enrolled for courses offered by Sloan-C institutions in the academic year just completed. Over 400 complete degree and certificate programs are offered by Sloan-C members, and can be accessed at the Sloan-C website (www.sloan-c.org).

We at Sloan believe that online learning represents one of the most important developments of the past 100 years for higher education, for it affords the prospect of access to quality higher education for many, many individuals who would, for reasons of proximity, age or other circumstances, not have this opportunity. We plan to continue our support for this area.

Today, I propose to touch on four points:

• First, I will briefly discuss the range of options that fall under the general terms: Online Education or eLearning.

• Second, I will take up the question of "quality" for online education.

• Third, I will provide some perspective on the kinds of institutions that are involved in online education.

• and finally, I would like to discuss applicability of online learning to workforce development, and how this is likely to change the character and reach of teaching institutions.

ONLINE LEARNING COMES IN DIFFERENT FORMS

Teaching online can be done in many ways, and is being done in many ways today. However there are two basic models, and all others fall somewhere in between. One is a self-study, or "broadcast" model in which materials, which may be quite sophisticated multimedia, but self-study materials nonetheless, are posted on the web, and these are perused and studied by learners at their own pace. This model can also be thought of as a form of online publishing. I remind you that self-study, mainly through books, but more recently augmented by videotapes or broadcast TV, has been available for over a century, and unusually disciplined individuals have been able to learn and earn credentials on their own.

The second model, the "interactive" model is one where "classes" begin on a particular day with a cohort group, are taught by a faculty member who interacts with individuals or the cohort through group e-mail and chat tools, generally referred to as Learning Management Software (LMS). Interaction with the instructor is not occasional or incidental, rather it is regular and continuous, as is interaction among students. The student/faculty ratio is about the same for these online classes as that for equivalent campus classes. The "class" also ends on a particular day, i.e., when the "term" is completed. This interactive model is the basis for most of the grants made by Sloan, because we believe it most closely parallels the learning environments associated with for-credit quality learning. Here is why:

For a very long time, quality education has been associated with education on campuses. Campus education has many elements, but there are three that stand out:

• First, students have access to learning materials. These might include books, classroom handouts such as notes, or special kinds of educational software, which may be commercial products or developed and distributed locally by faculty. These learning materials are often used in self-study fashion.

• Second, the student has access to a professor. The professor determines overall content for the course and the pace of the course. He/she may add thoughts and insights to what is in the learning materials, and has the task of assessing how well a student has learned.

• Campuses offer a third important element for learning: other students. Students turn to friends and colleagues for many reasons on many occasions, usually informally to seek help for instance in understanding the particulars of a lecture, or assistance with a problem set.

We at Sloan constructed our program around the idea that these three important elements of campus education . . . learning materials, the professor and other students . . . could be provided through the Internet to learners at remote locations. In other words, the kind of quality learning associated with campuses is now possible for everyone and available in a multiplicity of environments . . . the home, the desktop at work, hotel rooms, and quite likely on airplanes as well. Such learning environments operate 24 hours a day, and 7 days a week, though they generally begin and end on specified days. They allow anytime, anyplace, "asynchronous" learning.

Successful grant applicants in our program have proposed projects to us that involve an appropriate balance in these three important educational elements, and all

have gone on to implement successful projects, many of which today are offering full degrees, and in some cases, multiple degrees. In our projects, as in classroom courses, students are expected to purchase learning materials such as books and CD-ROM's. Notes and other materials are usually available as web postings, and pre-recorded lectures, in a number of cases are made available as streaming media.

Our online learning model envisions the Internet as primarily a communications facilitator, between instructor and students, and students and students, and secondarily as a medium for distribution of learning materials. To emphasize again: nothing is "canned" or pre-recorded in an interactive course other than the self-study learning materials which are about the same as the "canned" materials used in campus education. Interactivity here means interactivity with the instructor and other students and this is all time-elapsed conversations very similar to e-mail exchanges. The online publishing, or broadcast model, primarily envisions the Internet as a fast, efficient distribution medium for learning materials. In the decades to come, both models will see widespread adoption, as will models that combine aspects of the two. The broadcast and interactive models have different economics and consequences.

The broadcast model generally requires expensive efforts and longer time, to create learning materials, basically multimedia software, simulations, and video. These expenses might be several hundred thousand dollars per course, but there really is no limit, and I know of courses costing over a million dollars. The interactive model requires relatively little start-up funding, maybe $10,000 or so to create a college course. Typically, we at Sloan, support projects at a level of about $150,000 for a full masters degree, and we require that courses be delivered to learners through very conventional PC's costing under $1000, and very conventional modem connections to the Internet. Because student/faculty ratios approximate those on campus, the interactive model does not lead to a reduction in faculty (in fact, if total enrollments increase because courses are accessible to more learners, the need for new faculty also increases).

QUALITY IN ONLINE EDUCATION

The question of quality is an important one. It is important for the providing institution and for the learner to know just what kind of education is being offered and received. However, educational quality is not tied to any fixed standard. Over many years we have become comfortable with the idea that educational quality is in fact a variable that depends very much on the nature of the institution offering the courses and degrees. The quality of a particular community colleges courses and degrees might be different from the quality of another community college with similar courses and degrees; the quality of offerings from a community college may be different from the quality of a particular State university which in turn may be different in quality from the offerings of an "elite" private college. Therefore, we at Sloan have adopted the following view of quality: the quality of the online offerings of an institution should be about the same as the traditional classroom "on-campus" offerings of the same institution. The appropriate comparison of a degree program being offered by any institution should therefore be with the equivalent, or similar degree program being offered on campus.

Consistent with that view of quality, we ask those institutions receiving Sloan grants to work within a quality framework that has the following five elements:

ACCESS: Any online offering should expand access to education beyond what might have been possible with older methods (i.e., correspondence). The institution should make an effort to understand and measure this expansion of access.

LEARNING EFFECTIVENESS: Learning effectiveness should be about equivalent to learning effectiveness for campus students.

FACULTY ATTITUDES: The institution should have about the same range of faculty involved in online program as in the equivalent campus program, and should strive to get a large number of faculty interested in, and motivated to teach online, so that programs can be expanded as demand increases.

COST EFFECTIVENESS: The institution should strive to put its online programs on a sound financial basis so that these programs can be scaled up in response to demand.

OVERALL STUDENT SATISFACTION: Overall student satisfaction should be typical of what that institution strives for in its campus programs. One measure for this is retention of students for courses and persistence towards a degree. One challenge here for institutions is to ensure that off-campus learners receive the same quality of student services as provided for the campus population.

(Recent papers from Sloan-C members on each of these areas are in the book series ON-LINE EDUCATION, v.1, 2 and 3, John Bourne, Ed., which are available from Amazon.com or directly from John Bourne, john.bourne@olin.edu)

All projects are different in the details of their pedagogical approaches, delivery technology and student services, and so understandably, results tend to vary. In particular, results for a specific course depend greatly on the teaching ability, motivation and experience of the faculty member. We know this is also the case for classroom courses. Nevertheless, based on our considerable experience, and based on experience with classes that are taught on campus and on the internet by the same instructor giving the same examinations, on balance, we do not find any significant variation in learning effectiveness between classroom and on line courses taught in the interactive mode.

THE CURRENT PICTURE

Although much is reported about new kinds of online learning organizations, consortia, and for-profit educators, the fact is that most for-credit, degree-oriented online learning today is provided by traditional institutions which have a campus base, i.e., community colleges, comprehensive 4-year colleges and many State universities. Northern Virginia Community College (serving the Washington D.C. metropolitan area), Rio Salado Community College in Phoenix, AZ., and Bismarck State College in N.D. are examples of community colleges with large and thriving online education programs. Among State universities, leaders include University of Maryland (University College), State University of New York, the University of Massachusetts (particularly the Lowell campus), the University of Illinois, and the University of Washington. The State systems in the mountain States have also developed strong programs. In urban environments we see "hybrid" or "blended" courses appearing alongside entirely online courses. In a hybrid course, a learner may only have to come to campus for an evening class say, once a week instead of three times a week, doing the rest online. In rural environments where learners are widely geographically separated, fully online courses are preferred. It is quite clear however, that online education equally well serves the needs of rural, as well as urban learners.

We estimate that in the academic year just past (2001/2002), 3 million learners enrolled in online courses intended for the off-campus population. This number does not include the much larger number of enrollments in traditional campus courses which might incorporate some kind of "web-component".

The for-profit education providers are still a small part of the picture. They are growing quickly and some of them will become a significant presence. University of Phoenix is the leader in this group. A large number of courses and learning modules, for which I do not have an estimate, are also provided through the broadcast model. These are mainly of the non-credit variety and they are proprietary (within a corporation for example) and many training companies make these available to the public and to industrial firms.

WORK FORCE LEARNING

We believe online learning has very large significance for our workforce. The workforce of tomorrow will have to be better trained, and better able to access education, training and other knowledge resources. The Internet provides the ideal mechanism for this access. Some of the necessary courses, certifications, degrees and other kinds of knowledge modules are available today, but not many and not enough. Many more are needed.

A convenient way of conceptualizing workforce learning is to think in terms of "industries", and to further inquire if industry-specific learning resources are widely available online for access by workers in that industry, or for those who seek skilled positions in that industry. I would like to describe some Sloan projects that aim for impact by industry.

In 1998, supported by a Sloan Foundation grant, the Council for Adult and Experiential Learning (CAEL), convened a series of meetings with representatives of the major telecommunications service providers (due to mergers, the original six companies are now down to Verizon, SBC, Qwest, and Citizens) and representatives of the unions for the telecommunications industry (CWA and IBEW) to agree on a curriculum, governance structure, and an education institution to provide an A.S. degree for telephone network technician workers and those who wish to enter the industry. These meetings were successful in their purpose. A curriculum was agreed to and Pace University in New York was selected to develop all courses, and to deliver them online and to be the degree provider. A governance structure was also agreed to (the informal industry/unions committee was re-constituted as NACTEL, the Na-

tional Coalition for Telecommunications Education and Learning, and NACTEL oversees all aspects of the program, now in place). In this task, NACTEL is assisted by CAEL and by the Sloan Foundation, which provided initial project funding to Pace and CAEL. The first classes under the NACTEL program were given in 1999 (see www.nactel.org). This program has now enrolled several thousand so far, and has begun graduating a number of these. In spite of the difficult circumstances of the telecommunications industry, enrollments continue to grow. The NACTEL experience has shown two other striking results: about 40 percent of those enrolled are women, a surprise since women to not represent anywhere near that number in the existing workforce for this position. Comments gathered by program staff clearly indicate that women see this as an opportunity to move to a higher paying position, often moving away from dead-end office positions. Another striking result has been the overall success rate of these learners: on average, we see about 90 percent course completion rates in a rigorous curriculum that includes math, electric circuits etc. This result is a clear indicator of the desire and motivation of this learner population, and of the quality content and services provided by Pace.

More recently, Sloan funding has supported development of two other industry-specific programs: one for the Electric Power Industry (EPCE or Energy Providers Coalition for Education) and the other for Healthcare (H–CAP or Healthcare Career Advancement Program). The country's energy needs will require new power plants to be constructed and the power distribution system to be upgraded. This will increase the demand for skilled workers in that industry. The EPCE program, also managed by CAEL and funded by Sloan, offers three Associates degrees through Bismarck State College for workers in electric power (power generation, distribution, and system management). The Healthcare project initially focuses on education towards an R.N. and provides opportunities for those in the industry to move up to better-paying positions. Education is provided through a partnership between University of Phoenix and a consortium of 2-year schools, which provide the hands-on aspects of the nursing education and confer the Associates degree. As with NACTEL, the governance of these projects is through boards that comprise industry and labor representatives (IBEW in the case of EPCE and SEIU in the case of H–CAP).

The industry programs described above are one example of the way that online education will change educational institutions themselves. Bismarck State College, at one time enrolled only local learners. Now it counts among its students, electric power technicians in Florida, Wyoming and Texas. It is in some ways, beginning to resemble a national institution and with growing expertise in online education for electric power workers, it could become a preeminent institution for education in this segment. We should think of these efforts as only a beginning. Industry-specific offerings are an important way to ensure workforce learning, and offered in asynchronous online fashion, anytime, anyplace, they are a solution to the need for more family-friendly ways for workers to acquire education and training.

Before I leave the subject of online education for specific segments, I should note that many government agencies are themselves installing online programs for their personnel. A particularly good example here is the U.S. Army's successful eArmyU program, which today enrolls almost 30,000 enlisted personnel from 11 bases, and it is growing quickly. Soldier students have a choice of courses and certificate and degree programs from over 20 institutions listed in the eArmyU catalog. This number too is growing.

As other, new government units are created, for example the proposed Homeland Security Department, it seems clear that the requirement to rapidly educate and train a large, geographically dispersed workforce, will, at least in part, have to be met through online methods.

POLICY RECOMMENDTIONS

Overall Recommendation: Our experience with the interactive model of online learning shows that this way of teaching works, and it works in many disciplines for many segments of our population. It enables quality education to reach out to vast numbers of people that otherwise would be denied education and training. The Government, whether in tuition support, fellowships, or support of training should support quality online learning as it does traditional classroom learning. Quality, not mode of delivery should become the criterion for aid, recognition and support.

Senator ENZI. Now, Mr. Mendenhall, from the Western Governors University.

Mr. MENDENHALL. I think that is working.

Senator Enzi, I appreciate the opportunity to testify as to the value of distance learning. Let me begin by saying that distance education is not for everyone. It is not for every student or for every subject. Students must be self-disciplined and self-motivated, and some subjects lend themselves better to this mode of learning than others.

But for an increasingly large segment of our population, distance learning is the only option for them to pursue an ongoing education. For those who live in rural areas at a distance from traditional education, distance learning represents simply the only opportunity they have to pursue an education.

We have also found that for those living close to universities but working full-time, they very often cannot fit the traditional class schedule into their work schedule, and, again, distance learning becomes the only option for these individuals.

As a result, distance learning is the fastest-growing segment of higher education in the United States, and this is being driven by at least three factors:

The first is the changing demographic of learners. Our university system was created on the idea that education was a one-time event that happened between ages 18 and 24 as a transition from high school to the working world, and that individuals would go to college, be trained for a career that they would then work in for the rest of their working lives. This is simply no longer the case. On average, a working adult needs to be retrained and re-educated every 7 years today to stay current in workforce skills. As a result, now more than half of the students in higher education represent adults that are working full-time and trying to increase their skills and education.

The other driving force is the Internet, which now provides the opportunity for a much richer distance learning experience than what was available in the past. Distance learning is no longer the old correspondence school with which you are familiar that simply sent out print materials to be read and exams to be mailed back, but has, as others have testified, a rich interaction between faculty and between students. And, in fact, there are many studies that suggest that that interaction is actually richer over the Internet at a distance than occurs in many classroom-based campuses.

There have been numerous studies that show that distance learning is just as effective as classroom-based education. As in classroom-based education, some distance learning is good and some is bad. It is also true in the classroom. Some teachers are good and some are not very good. But there is nothing inherent in the mode of delivery that suggests a lower quality or that distance learning should be discriminated against in Federal financial aid policies or in other policies and Government regulations.

I would just add here that there is still a tendency in education to measure distance learning programs against classroom counterparts. Even the accreditation agencies tend to look at distance learning programs and ask if the functions are the same as in the classroom, if the faculty has the same role, if the students have the same role. I would suggest that when you change mode of delivery, other things may change as well, and that it would be more important not to look at how distance learning parallels classroom edu-

cation but, rather, are the outcomes as effective as classroom education and to measure it by the learning outcomes that come from distance learning as opposed to the methodologies that go into the education.

In fact, at Western Governors University, we have changed significantly the role of the faculty and the role of the institution. And yet, as a competency-based institution, we ensure through rigorous assessments that students have learned those things that are required to graduate with a degree.

A great example of the value of distance learning is the WGU Teachers College, which we created not to train high school students who think they may want to be teachers someday. That is the role of traditional universities. And one of the things we found from high school students is that 40 percent of those who graduate in education 3 years later are no longer teaching in our schools because they have moved in a different direction.

We instead are reaching out to the paraprofessionals already in our schools, to the uncertified teachers in our schools, which in urban and rural areas are as many as 40 percent of our total teaching population, and to current teachers who need to upgrade their skills. These individuals all work full-time and all have families and would not be able to access traditional education and yet, through online education, can enhance their skills and abilities. We know that the most important factor in K–12 education is the quality of the teacher, and we know that if we can improve that quality, we will make a significant difference in K–12 education.

In conclusion, I would suggest four policy recommendations for Federal policy.

The first would be to eliminate the 50-percent rule in Federal financial aid, which basically restricts financial aid to those institutions that are mostly campus-based, that is, more than 50-percent campus-based, and specifically rules out new institutions that do distance learning. I believe that new institutions may be able to better perform distance learning functions than existing institutions because they don't have the infrastructure of the existing institutions.

Second, I would authorize the Distance Education Training Council as an accrediting body for distance education, as those that have the most experience in distance education. And our experience with them is that they are as rigorous as any accreditation we have gone through.

Finally, I would continue the demonstration program for Federal financial aid that allows the Department of Education to modify rules for distance learning institutions. And as part of the Higher Education Reauthorization Act, I would explicitly suggest that Congress include distance education as an important component of higher education in the United States and not discriminate on the mode of learning but, rather, on quality of learning.

Thank you very much.

[The prepared statement of Mr. Mendenhall follows:]

PREPARED STATEMENT OF ROBERT W. MENDENHALL

Mr. Chairman, and Members of the Committee: I am pleased to be here today to discuss with you the value of distance education as a key component of our national higher education landscape. I wish to share with you that distance education is the

fastest growing sector of U.S. higher education, and is an essential element in our national competitiveness. Driving this expansion are three primary factors.

1. The changing demographics of students—the majority of students are now adults working full time and providing for a family.

2. The pace of change—technological and otherwise—in the workplace which requires ongoing adult education.

3. The advent of the Internet which provides powerful new ways to deliver and mediate instruction at a distance.

It is important that the Congress recognize and support distance education as a key component and growing proportion of U.S. higher education. Numerous studies have shown that distance education is equally effective as classroom instruction. In my testimony I recommend that Congress end the current bias against distance learning in Federal financial aid programs and encourage innovation and new models in higher education.

Western Governors University (WGU), of which I am President, offers competency-based degree programs nationally through online distance education. We are a private, non-profit institution founded and supported by governors of 19 western States to share distance education resources and expand access to higher education. We have been funded in part by Congress and the U.S. Department of Education, as well as 24 national corporate and foundation partners. WGU has from the beginning been part of the demonstration program for Federal financial aid for distance learning. WGU is accredited by DETC—the Distance Education and Training Council—and has regional accreditation as a candidate institution.

VALUE OF DISTANCE EDUCATION

Distance education is by far the fastest growing component of U.S. higher education. Over 2 million students are now enrolled in distance education, up from approximately 700,000 students just four years ago. Driving this transformation is the changing demographic of higher education—more than half of those enrolled in higher education are older working adults. No longer is the typical student an 18 to 25-year-old, fresh out of high school, and needing a college education for preparatory work skills and socialization into adult life. Rather, today's student is an adult 25 to 50 years old, already established in the world of work, with home and community responsibilities as well as demands to stay current in his or her field of endeavor or re-career into a new vocation of interest. Driving forces such as technological change and globalization exacerbate this adult educational imperative. These working adult students simply cannot attend traditional higher education that is place-bound, time-restricted, and invests too heavily in a campus life that is removed from their needs. The facilities and organizations built for traditional students simply don't fit—such things as dormitories, student unions, sports complexes, cafeterias, and museums. Adult students enroll voluntarily and have a clear focus on the ends they wish to achieve; they are more experienced, motivated, and task-oriented than their younger counterparts. Although traditional institutions of higher education are trying to meet the needs of this new student population, their design is still upon the conventional undergraduate populations coming from high school. This can be seen in the preponderance of 8 a.m. to 5 p.m. instruction and administrative services, the requirement of in-person attendance, and their use of technology to support a classroom-based approach.

Increasingly these adult students turn to distance education as an important, viable alternative. Foremost, distance education provides instruction "24 hour by 7 days a week" that is not time- or place-bound. Students can access their courses from home or work when studies are convenient to them, without having to commute miles away to a campus classroom with a fixed schedule that may not meet their own. One student commented: "I truly doubt it would even be possible for me to be pursuing another degree while [working] if it wasn't for the flexibility and availability of the WGU program." Another one said: "I would have to drive to campus, park, walk to class, spend time in class and then do my studies . . . twice or three times a week after [working]. Distance education . . . took out all of the tedium, solved the travel requirements, and enabled me to tailor the specific time schedule to my personal needs. I did a significant amount of my study and writing in the midnight hours because those were the most convenient to me." These adult students are familiar with a workplace that heavily relies on telecommunications and the information technology of the Internet. As such, they have no difficulty using these technologies in pursuit of a distance degree. The demand for distance learning will continue to grow, and the students attracted to the method are older, working, and in need of Federal assistance to help pay for their education.

Distance education is particularly beneficial to adults living in rural areas, locations that are remote from college campuses. They need a viable option to upgrade their skills to continue employment in these communities; without distance learning options, getting a higher education would not be possible. One of our students commented: "I am a high school teacher working in a school with a student body of 400 students in grades 9–12 located in a semi-rural community . . . The nearest college is located 55 miles away—one hour travel time away. The reason I have not been able to obtain a graduate degree until now is due to time constraints. Colleges don't like to offer classes in a time frame I could attend—when children are in bed and the day's work has been completed. About 2½ years ago I heard about [WGU's distance program]; this meant that I could study and complete projects/assignments when I have the time." Through online distance education these students are able to stay gainfully employed and engaged in the economic and social development of these small communities while still being able to advance their expertise through a college degree. Taking courses via the Internet allows them to upgrade their technology skills, ensuring that rural America is not left behind with the expansion of the information superhighway.

ENCOURAGING INNOVATION IN HIGHER EDUCATION

Distance education is a new force in a country whose economy demands more knowledge workers. At no period in our country's history has there been the same imperative to encourage innovation, initiative, and responsiveness in higher education. The workplace demands a greater responsiveness from higher education to meet its needs for technologically skilled and adaptable employees who can work in distance collaborations with their peers in other States and nations through telecommunications in the competitive global economy. However, traditional modes of education are not equipped to create these kinds of workers, simply because they don't provide instruction that fits this model.

Increasingly higher education requires new types of organizations dedicated to innovation and access, such as the dozens of distance education institutions that have sprung up in the past decade. These virtual institutions propose new models of education that fit the needs of these adult students. The faculty role has changed from the "sage on the stage" to that of mentor who guides and facilitates individualized learning. Distance courses are frequently provided with an open start date (i.e., students can begin their studies throughout the year), and open exit (i.e., they can move through the course at their own pace, finishing early if they have met all the requirements).

Many scholars posit that distance education provides important advantages over the traditional classroom. Obviously access is high on the list—providing 24 by 7 access to online courses wherever the Internet is available—a delivery mode that is neither time nor place bound. Further, distance education provides access to a wealth of Web-based information resources, as well as full-text articles and book services of a campus-free virtual library. Online instruction is far different than the passive correspondence education of the past; there are more frequent and in-depth interactions with peers and the instructor made possible through web-based communications, threaded discussions, and "live" technology-mediated conversations. Telecommunications can provide immediate feedback and responsive turnaround of assignments and assessments. Usually distance education courses have undergone a more systematic design and development than their classroom counterparts. The educational experience is enhanced by the multi-media of streamed audio and video in addition to text, and these courses are able to incorporate computer-based examinations in ways not possible without such technology. A student commented: "My online instructors have provided not only adequate textbook materials, but they also offer Internet links, online video lectures, and interactive discussions. I can have immediate feedback from fellow students as well as timely feedback from my professors. Grades are available for viewing [online] so students know exactly where they stand." Finally, the research on satisfaction and performance finds that distance education is equal to or exceeds that of traditional higher education instruction.

AN EXAMPLE OF THE NEED FOR DISTANCE EDUCATION

A concrete example of the importance of distance education is found in teacher education. WGU has created an online Teachers College to address the critical shortage in the U.S. for two million new qualified K–12 teachers in the next 10 years, as well as the need to upgrade the education of current teachers. It is now clear that new ways must be found to educate and qualify new teachers effectively and efficiently. WGU has been funded by the Department of Education to develop online competency-based degrees and teacher certification programs.

WGU's Teachers College provides a unique opportunity for paraprofessionals and uncertified teachers currently in schools to demonstrate their competencies and gain teaching credentials. There are half a million paraprofessionals currently in schools and perhaps an equal number of uncertified teachers. In addition, only 42 percent of the current three million teachers in our schools currently have master's degrees, and the Teachers College will give many of these individuals an opportunity for further education and higher pay. The national impact will be a higher level of teaching proficiency in our K–12 schools, which is the single most important determinant of educational quality. While traditional schools of education may fill much of the need for new teachers, WGU's national program will: (1) reach valuable adult workers, including a significant number of minorities, who otherwise will be left outside the system, and (2) reach existing teachers at times and places convenient to them to upgrade their skills and earning potential.

Currently, there are three significant groups of working adults that can immediately begin to meet the shortage of teachers, given a flexible and accessible way to obtain the required education credentials. These are: (1) paraprofessionals who currently assist classroom teachers; (2) uncertified teachers who are provisionally hired; and (3) professionals from other fields who want to enter the teaching profession. I will briefly explain the situations of each of these groups and the appeal of distance education through WGU.

The first group consists of 500,000 paraprofessionals currently working in schools that have classroom experience and are already dedicated to K–12 education. The best place to fill the need for new teachers is not by educating brand new teachers. Nearly one half of the graduates of our schools of education are not teaching 3 years later, either because the classroom was not what they expected or because they were offered better jobs outside the classroom. These paraprofessionals, culturally diverse and eager for advancement, are seeking careers in our schools and inherently have many of the competencies they need to become teachers. But for a variety of reasons—including time, accessibility, and the need to maintain a full-time job—they have not been able to finish their degree. WGU's educational model gives these individuals the opportunity to gain the competencies they are lacking to become teachers. Extending this educational opportunity to paraprofessionals will facilitate an increase in the population of minority teachers—currently under-represented in the teaching community—to provide important role models for minority students in the American school system.

The second group includes all of the current uncertified teachers that are currently teaching in grades K–12. Because of a national shortage of certified teachers, school districts are hiring uncertified personnel under emergency certification. In some urban districts and in rural areas, as many as 40 percent of all teachers lack certification, amounting to hundreds of thousands of teachers nationally. If these teachers do not certify within 2 years (in most cases), they will be let go, even though new uncertified teachers will take their place. There are few programs in place to allow these individuals to gain the necessary education and certification while teaching.

The third group consists of thousands of retired business and military personnel who are ready to give back to society by teaching in our schools, but who do not want—or need—to go back to school for 4 years to make this vital contribution. Many of these second-career individuals already have significant competencies in key areas like math, science, and technology, and most provide excellent role models of success for students. In recognition of this potential, the Federal Government has started a multimillion-dollar "Troops to Teachers" program to encourage retired military personnel to teach in urban school districts. WGU competency-based degrees and certificates offer a unique opportunity to qualify these individuals as teachers while allowing them to gain the competencies they lack in an efficient way.

These programs at WGU are funded by the U.S. Department of Education. The University and its degrees are accredited by both DETC and regional accreditation. States have their own separate approval process to recognize teacher certification and endorsements. With all of these safeguards on quality, it would be wrong to exclude qualified individuals in these programs from Federal financial aid simply because the programs are delivered at a distance.

RECOMMENDATION: PROVIDE DISTANCE EDUCATION WITH FEDERAL FINANCIAL AID ON AN EQUAL BASIS WITH TRADITIONAL EDUCATION

The 1992 Higher Education Act in effect put a ban on the use of Title IV student aid for distance education institutions. This was in reaction to the student loan default scandals of the 1980's, but it can be argued that in today's world we have effectively thrown out the baby with the bath water. Today, the growth in distance edu-

cation is in degree granting institutions rather than the vocational schools that created the problems of the 1980's. Academic degree programs, whether campus-based or at a distance, have certain inherent quality controls, including accreditation, admissions screening, prior academic attainment, tighter academic standards, and high level of faculty involvement in teaching. New distance education programs, spawned by the power of computers and telecommunications, particularly the Internet, have been created with quality equal to that of campus-based institutions. The ban on Federal financial aid has unfairly penalized legitimate accredited distance education institutions and colleges that have only recently entered the distance learning field. Federal funding and personal tax incentives for education currently depend on which mode of education a student uses rather than the academic quality of the learning involved. Recent proposed changes to the fifty percent rule don't go far enough as they limit Federal financial aid for distance learning institutions that are not already part of Title IV. Limiting providers of distance education to schools already participating in Title IV discourages innovation and the new models of higher education based around the new paradigms of learning.

There are already sufficient safeguards to mitigate the potential for student aid fraud and abuse without disenfranchising an entire class of institutions and hundreds of thousands of deserving students. Correspondence schools were singled out in 1992 as major perpetrators of fraud, but such problems were not unique to that segment. Congressional "fixes" such as requiring completion and placement percentages and forbidding high defaults have reduced problems with Federal financial aid, and will serve the same purpose if applied to distance education. In fact, student loan defaults are now at historic lows, even while usage of aid is at all time highs. It is time for Congress to act for all of the students and potential students in distance education.

The following are submitted as recommendations for Federal policy relating to distance education:

1. Eliminate the 50 percent rule in Federal financial aid, which basically restricts Federal financial aid for distance learning to institutions that are mostly campus-based. Thus new institutions formed specifically around distance learning models are locked out of being able to offer Federal financial aid. This includes many fine accredited institutions.

2. Authorize the DETC—Distance Education Training Council—as a Title IV accreditor. DETC is a rigorous, recognized accreditation agency, with the most experience in distance education, and could play a significant role in assuring quality in distance education programs.

3. Continue the demonstration program for Federal financial aid. The demonstration program is showing effectively that the Department of Education can adapt its rules and regulations to allow distance education programs, including very innovative programs such as WGU's competency-based degrees, to participate in Federal financial aid.

4. As a follow-on to the demonstration project, with the Higher Education Reauthorization act in 2 years, explicitly provide for the participation of distance education students and institutions, and give the Department of Education the ability to adapt its rules and regulations as needed to allow for innovation in higher education.

APPENDIX: WGU STUDENT TESTIMONIALS OF DISTANCE EDUCATION

I am a student with Western Governors University. I started my masters program in education in February of 2001. I am now half way through with the program. I chose WGU because of the freedom of doing the work on my own time and at my own pace. In the past, I had started masters programs twice through regular universities and found the class schedules impossible to fit into my schedule. This included night classes. It would have taken me three to 4 years to finish either program. I was almost going to give up working towards my educational goals when I discovered WGU. The work is demanding, but I am able to fit it into my spare hours and I am encouraged by my progress.

With the demands of our society on education, it only makes sense to have available the opportunity to advance through distance learning. These programs may not be for everyone, but they have a place in our world. I know there are others with an extremely busy life that need to have a program that fits in today's high pressured life style. I would recommend this program to anyone needing to work at an independent rate.

Dennis W. Nalder

Speaking as an administrator for a community college district, I feel as though WGU is accomplishing something far beyond the obvious. The ability to access cur-

riculum and work with colleagues from across the country in the pursuit of an advanced degree is a far more time efficient and productive process than traditional classroom environments are able to offer for professionals in the field. In our personal on-line education programs, we encounter, first hand, the experiences we will eventually be developing for our own students. The perspective gained through our own direct experiences in programs such as those at WGU will better prepare those of us in higher education to meet the challenges of education in the future.

Wesley H. Wingfield

I am a Western Governors University distance-learning student. I am also a tenured secondary science teacher working on my Masters degree through this wonderful networked university. I truly doubt it would even be possible for me to be pursuing another degree while teaching if it wasn't for the flexibility and availability of the Western Governors program.

My workweek usually entails a ten-hour day with grading and lesson planning at home. This is not very conducive to extracurricular studying, or personal goal attainment. I am becoming more convinced all the time that technology is the answer to limited resources and time that adult learners face. I am even coming to suspect that online learning could be an answer for adolescent learners who are absent, non-conventional learners, or home-schooled.

I have attended college and university courses for a total of nearly 8 years. I can honestly say I feel the level of personal instruction is greater via e-mail and online guidance than I ever received in an impersonal classroom setting.

As for the quality of instruction, my online instructors have provided not only adequate textbook materials, but they also offer Internet links, online video lectures, and interactive discussions. I can have immediate feedback from fellow students as well as timely feedback from my professors. Grades are available for viewing so students know exactly where they stand, and revisions on papers is offered by most instructors because they have the time to read them electronically.

I appreciate your efforts to support distance-learning initiatives. If our country is going to continue to be a leader in producing critical thinkers with strong communication and technological skills, then education must continue to develop and expand online programs like Western Governors University.

Penny L. Hood

There are many advantages to distance learning for the professional. I appreciate not having to drive to an institution of learning, find parking, take the time to walk to class, sit in class, then repeat the transportation process home. Besides this, I am able to "take my classes" during whichever part of the day works best for me. I have spent many hours at my computer doing coursework between 2AM and 6AM. I have never found professors' office hours to be instantaneous, but with electronic mail, I have received responses from my course professors (as well as my mentor) within twenty-four hours of sending an electronic question. Sometimes I have even been on a chat line with my professor(s), and this has been unbelievably helpful.

This method of pursuing a higher education degree is the only way I would have been able to accomplish the goal of graduate degrees, and I am very grateful for Western Governors University.

Kathryn Schlendorf

It has always been my desire to complete a Master's Degree Program. For various reasons, I have been unable to obtain my advanced degree. I have taken many graduate level courses delivered in many different formats while living in Montana, Colorado, and now Wyoming. When I learned about WGU, I realized that I would now be able to complete a Master's Degree. The convenience of learning at home via the Internet and access to excellent resources without leaving my home, are certainly strengths. With this format, I have also been able to increase my skills and abilities to utilize technology, which I feel is a very beneficial skill regardless of a person's career. WGU has opened up doors for me that I would not have been able to access without an extreme inconvenience for my family, my career, and myself. I would not be considering an advance degree at this time if it weren't for Western Governors University.

Connie Keogh

I am a high school teacher working in a school with a student body population of 400 students in grades 9–12 located in a semi-rural community. I teach five classes each day on a six period schedule. Most of the time, I have five different classes, which means five different preps daily. I also advise two student organizations, Future Business Leaders of America and National Honor Society.

I am also a mother with three children ages 5 (Kindergarten), 7 (2nd Grade), and 10 (6th Grade). In order to provide parental care for our children, my husband works nights and cares for the children during the day. Our youngest child is now in Kindergarten for a half-day. I am the caregiver in the evenings.

I have been teaching for 15 years. I am now at a point in my career where I need to earn a graduate to move up on my district's salary schedule. If I don't get the degree, I will stay at the same level for the rest of my teaching career with only salary increases if the salary schedule is adjusted for cost of living increases.

The nearest college is located 55 miles away—one hour travel time away. The reason I have not been able to obtain a graduate degree until now is due to time constraints. Colleges don't like to offer classes in a time frame I could attend—when the children are in bed and the day's work has been completed. About 2½ years ago I heard about a program at a place called Western Governors University, that was by distance learning. This meant that I could study and complete projects/assignments when I have the time.

Since my study time is flexible and my progress through the program is totally geared to meet my schedule, I have been able to meet other life challenges and still continue with my studies. I am now looking forward to obtaining a master's degree in Learning and Technology through WGU. This has been somewhat harder than simply attending a class and completing the assignments. I feel that I am learning a great deal more than I would in a traditional program. I know that I would not have been able to make this much progress toward my graduate degree if it were not for WGU.

Mineta Wilde

I am writing this letter to express appreciation to all the people responsible for making my graduation from Western Governors University in September a reality.

Four years ago I began looking into masters' degree programs in educational technology. At the time I was teaching sixth grade, raising a family, and teaching technology professional development classes to supplement our family income. This left me very little time for scheduling classes to each a master's degree. Online distance learning was just starting to be an option, and I remember thinking at the time, "If only I could find a program that would allow me to stay home and earn my degree through the Internet." I decided to put my masters on hold for a few years until my children were older, and I could save money for tuition. However, three months later I received a letter inviting me to apply for a master's degree in "Learning and Technology" through WGU.

Karren Perry

I am starting my fifth year as a public educator in rural Utah. I am very busy with my teaching and coaching, not to mention my family and other responsibilities. Also, as an educator, funding a Master's degree on my own would really have presented many problems financially for my family. Furthermore, I do not live near a university where I could pursue my Master's degree.

Eric Mortensen

Since enrolling at WGU, I have learned to appreciate the value of an online education. While working toward my master's degree in Instructional Technology, I have been able to work full-time, as well as fulfill my family and civic responsibilities. A traditional education would not allow that freedom.

Lynn Sorensen

I am sitting in a very familiar place as I type this letter . . . my computer den. This tiny, cluttered room is where I have diligently labored over the past 3 years on my Masters of Learning and Technology degree from Western Governors University. Sometimes I have felt lonely and isolated, sometimes overwhelmed and weary. But I have always felt grateful—grateful for the chance to pursue an advanced degree that will benefit my personal life and enrich the students who share my professional life.

As I near the proverbial finish line with only my Capstone Project to fine tune and an oral defense to prepare, I look back on what I have accomplished. I have learned about the different hardware and software options available to examine and procure for my classroom; I have learned how to research in a scholarly and systematic manner those topics pertinent to education today; I have developed a training program to teach my student newspaper editors the ins and outs of desktop publishing and its use in the larger context of an Internet-connected journalism lab, including such issues as privacy, security, and fair use policies for materials found on the Web; I have discovered the importance of careful curriculum planning and evalua-

tion and how to integrate technology in its myriad of forms into my teaching style, strategy, and media; in short, I have become a better teacher.

Arna L. Clark

My previous university experience included training at Brigham Young University and at the University of Grenoble, France, as an undergraduate, as well as graduate studies at the University of New Mexico in Albuquerque, NM. With the commitments that now faced me, I had postponed any further graduate work because of the time requirements. I would have to drive to a campus, park, walk to class, spend time in class and then do my studies independently. This would be necessary twice or three times a week after teaching school, and I did not see how I could take care of my family and pursue a Masters degree in the traditional setting.

Distance learning, particularly "Western Governor's style," took out all the tedium, solved the travel requirements, and enabled me to tailor the specific time schedule to my personal needs. I did a significant amount of my study and writing in the midnight hours because those were the most convenient for me. It was wonderful. I could get online at any hour. I could send e-mail questions to the chat line of students or to any of my professors at any time, and they would answer whenever it was convenient for them. Often I received answers within a few hours. I was awed by how distance learning expedited the communication process. In fact, as I compare my educational experience at WGU with the other school I attended, I had never experienced such support.

Kathy Schlendorf

Without the flexibility offered by Western Governors University, it would not be possible for me to earn my masters degree. I work full time and then some at a professional job, have two preschool aged children and manage a household. My new career requires I earn a masters in the next few years. I had no idea how I would manage that until I learned about Western Governors University.

The beauty of the program lies in its flexibility. I work on my degree when I can. For me, it's an ideal situation.

Denise Dowling

The ability to work on degrees and obtain credit via distance learning programs fills a vital niche in the college world. In a society where many people work long hours and spend much of their time juggling work commitments and family, distance learning allows individuals a chance to earn a degree when the standard path to a college education fails them.

I am one of those people that have been helped by distance learning programs and in particular Western Governors University. My job requires that I work odd hours at random times. Many days start at seven in the morning, come with a couple of hours off in the afternoon and finish with a stint of teaching until 9 at night. With such a varied schedule, I would never be able to attend normally structured classes. Because I am also supporting a family, including a wife who is attending a local college, quitting work or cutting back is not an option. Western Governors University's competency based degree program has finally allowed me to work towards a degree. After 3 years of working at my pace with the time I have available, I will at last have my 2 year degree done and will start working towards my bachelors. My dream of getting a college degree will be fulfilled because of distance learn programs like WGU's.

I cannot stress enough how important distance learning opportunities are to working people in the United States. It is of the utmost importance that these programs continue to get the support and funding needed to provide college opportunities to those individuals who can't attend a normal two or four year institution.

Greg Marshall

Being from Cokeville, WY my opportunities for pursuing a master degree without relocating to a college town was not an option. WGU has enabled me to pursue one of my life goals. WGU's program is also allowing me to expand my career choices and earn a higher income in my chosen field of education. As a father of a young and growing family of three sons, these things are important and add security for my family.

Brian Toomer

I would like to reassure you of the positive experience that WGU has provided for me.

All of my classes provided instruction where work was completed and transferred via the Internet. At times, I could interact with on-line chat classes where we would discuss, and plan assignments with other students around the State and country.

Our classes were not restricted to specific time schedules. Many of the interactions with my classmates occurred at night due to most of us having teaching positions during the day.

I have to say this program gave me the opportunity to accomplish this personal goal. I could not have done so without the opportunity to still teach for an income, but it also has allowed me to complete my work at times when my family was not at home or my children were asleep.

This program may not be for everyone. Students need to be self-motivated and ready to learn. The program was by no means easy but I feel I have learned a great deal from this experience and accomplished a great amount.

Senator ENZI. Thank you very much for your testimony today, and I would mention that your complete testimony will be part of the record, and I have some questions that I am going to ask here in a moment, which will also be part of the record. I probably won't have time to ask all of them, so I will be submitting some of them in writing, as will other members of the committee, because this is our opportunity to build a record for when we do the Higher Education reauthorization.

I am just so pleased with the comments that you have had. You have gone into some of the very basic things that we will have to explain again and again, I am sure, as we go through the process. But you have given me some good clues on how to do that.

The Internet has definitely changed our lives. I think it has changed the way that kids have to be taught. I have a daughter that was a 7th-grade English teacher in Gillette, Wyoming, for a long time, and that involves doing research assignments. And she has found that that had to change because it is so much easier to do research now.

One of the things we want to do is encourage that easier research, but make students more efficient at it and make sure that the data that they are getting is very good.

She is now the principal at Chugwater School, which is K–12, 126 students. It is one of those rural schools, and the kids receive German by Internet there. So they are getting some of the instruction and have an opportunity even to take some college courses while they are in high school.

So there is some new potential out there that some of us who have been around a while can't quite envision. I would add that I am the one that is trying to get computers on the floor of the Senate, and I have run into quite a bit of resistance. On September 11th, we had a little communication problem and found out that the Internet was the only way they could keep track of us. So we have all been issued BlackBerrys now, which I point out to them is a computer that works on wireless, and have asked for them to revise the rule again. They have assured me the next time the Rules Committee meets, that will be first on the agenda. That assured me that the Rules Committee is not meeting again this year.

[Laughter.]

But I have a real appreciation for the distance learning. Wyoming is distance. We have miles and miles of miles and miles. Our towns are spread out, and they are relatively small. But there are some tremendous opportunities, and I have begun to recognize some of those opportunities because my wife travels back and forth with me. She is out here when I am out here, and in Wyoming traveling when I am out there almost every weekend. And she wanted to get a master's degree, and she did that by distance

learning. She could get her courses sometimes when we were in an airport. Usually, she was able to do the planning so she was here or there. But I got to see some of the value of being able to utilize distance education—and also some of the disadvantages. She didn't have the social atmosphere that you have if you go to a college. But she was able to get the education and the degree. It gave her the flexibility that she would not have had otherwise.

I have been pleased to sponsor S. 1445, which is the Internet Equity and Education Act of 2001. It is important legislation which is based on the findings of the bipartisan Web-based Education Committee that I and a number of other Congressmen serve on. And it will accomplish the critical goal of giving more students the opportunity to pursue postsecondary education by expanding their access to financial aid for students who choose to further their education through distance learning. And I am pleased that the University of Wyoming—that is our only 4-year institution in Wyoming, public or private—is making use of it and experiencing record-breaking enrollments in their distance learning.

We have a State that is 98,000 square miles, and as I mentioned, the towns are a long ways apart. So it is my hope that Congress will modernize the Higher Education Act so that the distance education programs like the University of Wyoming's and the Western Governors University's will be able to expand even further to serve more interested students. And I know that most of those are adults and nontraditional. So this hearing has helped to bring out a lot of that. You have given some excellent testimony. I do want to ask a few questions.

Ms. Ashby, on page 10 of your written testimony, you State that financial aid is not as great a concern for students who take distance education courses as it is for other students. Could you expand on that a little bit or clarify it a little bit for me?

Ms. ASHBY. Yes, let me clarify. We did not mean that financial aid was not as important. What we found is that distance education students have applied for and are receiving it to a lesser extent than other students. But we suspect that that might be for a number of reasons, including the fact that, as you just said, most distance education students are nontraditional students. They are older than other college students. They are part-time students and full-time workers. Many are married. So it might very well be that they have their own resources and don't need financial aid. If they are part-time students, it is costing them less than it would cost a full-time student to go to school.

We have not been able to look into this issue to this extent, but these are speculations given what we know about the nature of the distance education learner.

Senator ENZI. Your statistics show that distance education students apply for financial aid at a lower rate than other students. Is it possible that fewer distance education students apply for that because they know that they are not eligible to receive it? Is that knowledge among them?

Ms. ASHBY. Well, actually, distance education students are eligible to receive financial aid as long as they are attending an institution that is eligible. Other than the reasons I gave you earlier, the

nontraditional student versus the traditional student, I really can't speculate further as to why that is.

Senator ENZI. Well, you mentioned the 50-percent rule, so they would know they are not eligible from that in some instances.

Ms. ASHBY. If they were attending a school—right, if they were attending a school that had more than 50 percent of its courses or 50 percent of its students in distance education, they would know that. I presume they would know that.

Senator ENZI. OK. Do you have any idea what percentage of the students would be eligible then for financial aid? They are not applying for it, but how many would be eligible?

Ms. ASHBY. I don't know.

Senator ENZI. Mr. Mayadas, in your written testimony, you talk about five elements that should be used to ensure quality distance education. Most of these elements link distance program performance with that of on-campus instruction. Do you have any ideas on ways that a distance-only institution can ensure quality?

Mr. MAYADAS. Yes, I think it is much easier if you have a campus base, of course, and even some of the fast-growing for-profits like University of Phoenix have started that way. And they still are mainly a classroom-based institution with a new online version.

If you are an entirely online institution, then one way to evaluate quality is to compare that institution with some other known institution that is approximately equivalent in its goals that may have a campus base. So that is the kind of comparison that could be made between entirely online institutions. Perhaps they could be asked which institutions do you compare yourselves to, and so that is one way to do it. There may be other ways as well.

Our five elements of quality I think would be pretty easy to apply to an entirely online institution. For example, we think if you are going to spend all this money on computers and so forth, you should be expanding access over and above what would have been possible with just correspondence and the older methods. I think an institution should be able to think of their program in that way and describe how they are doing that. Learning effectiveness simply says that they have got to be learning what you are teaching them, and you could do that by comparison with another institution.

So I think in each of these we could rationalize a sensible approach to quality for an entirely online institution.

Senator ENZI. Certainly a lot of information available out there. I know when I was going to college, I went to the George Washington University here in Washington, D.C., and one of the exercises they used to have us do is go up to the Library of Congress, pick a subject, and then, you know, do a bibliography on everything that was available there. And it was usually pretty impressive the number of books that were available, and it helped us to shorten our—to limit our topic a bit more.

Today, kids would just need reams of paper to do that same thing in a few minutes. So we have changed.

You talk about two distinct forms of online learning: the broadcast and the interactive. And one of the characteristics of the interactive model which you believe provides higher-quality instruction is that the course begins and ends on a particular day. In your

opinion, is it possible to have quality interactive online programs that are self-paced, or is that a conflict of terms?

Mr. MAYADAS. Yes, we started with the idea that if you had a cohort or a class and they began and ended on the same day, they would get to know each other; they would feel comfortable asking questions. They would interact much the way that we know that classmates interact on campuses and have for many years.

If it is entirely self-paced—and we do have a few where it is any-time enrollment and when you complete the work it is done. And I think in some fields that works, and that certainly works for training. For for-credit education, it is just not used as much, and I think most institutions prefer to start 1 day and end on a specific day because of the sort of reasons I have given, which is you kind of build a certain camaraderie. You seek help from your fellow students and so on. It is easier to do that when you know who they are.

And interactivity, I think Bob Mendenhall may have mentioned this. Certainly we have found that interactivity with the instructor and with other students always ranks way at the top on student satisfaction surveys. It is the one thing they really value.

Senator ENZI. Not to mention that we all kind of operate on deadlines, right?

Mr. MAYADAS. That is right. Exactly.

Senator ENZI. You mentioned in your testimony the Army's program that allows members of the armed forces to continue their education while serving the country. Can you tell me a little bit more about that program?

Mr. MAYADAS. Yes, that program at this point consists of a consortium of schools, about somewhat more than 20, and it is due to be expanded. They haven't got the new list yet, but there will be a new number. I think it will exceed 30. A soldier can sign up for a program from any one of those institutions, and if the soldier is transferred, there is no problem. You continue to take your classes.

The Army provides an attractive package for the soldier, a portable computer and an Internet connection, but requires progress toward a degree at a certain rate; otherwise, you have to pay for that stuff. So it provides a lot of incentive to finish your work.

That program has over 30,000 enlisted personnel enrolled right now, and it is doing remarkably well. Considering the unusual circumstances that enlisted personnel can end up in, their completion rates are amazingly good.

Senator ENZI. That probably has to do somewhat with that incentive of having to pay for it if they don't progress.

[Laughter.]

Mr. MAYADAS. I think it does. It really does.

Senator ENZI. That is good to keep in mind, too.

Mr. Shank, you mentioned that online learning may be a more effective tool for adult students. Can you expand on that and tell us why it can be so beneficial for the nontraditional students?

Mr. SHANK. Yes, Senator Enzi. If you would indulge me, I would also like to make a couple comments on the exchange that you had with Mr. Mayadas about how an online school, purely online, measures quality, which I think is very important to the issues here. And, again, I will talk about our instructional model that we have

developed at Capella University which is based entirely on a model of adult learning, and adults are different. They are very different than the traditional student who is able to be on campus, devote the individual's entire life to the educational experience, have a relatively leisurely period of time.

What we know about adults is they learn most effectively if the learning can be active, if they can be actively engaged in the instruction as a peer, not a more traditional educational model where the faculty individual pretty much is the fount of information and the information is a one-way flow.

It is also important that adults are able to interact with the faculty and interact with other peers engaged in similar life circumstances and work circumstances which enrich their particular interest at the moment, and they can take that work and they can apply it to what is relevant to them right now. That is how you get good learning.

We know that a whole lot of learning going on in the workplace is not producing the desired results because this episodic approach to learning is not effective. Online education is very effective in that respect.

In terms of measuring, as a purely distance institution, what we are doing is we are adopting a totally outcomes-based philosophy, and we are embedding in every course, in all of our programs, a specific set of learning outcomes. Those may be knowledge outcomes. They may be academic skills such as computer usage, research skills, etc. They are also doing skills.

We have a philosophy that if we can describe this, we can measure this, and we can demonstrate whether or not we are meeting our stated learning outcomes; and if we are not, why not; and then the faculty is expected to engage in engage in processes of how we improve learning outcomes.

Senator ENZI. You mentioned that adult students are better if there is some interaction. Can you explain that a little bit? We are not talking about programmed learning, are we?

Mr. SHANK. We are not talking about programmed learning. I would echo 100 percent the indicators of quality that Mr. Mayadas has communicated. By interaction—again, I will talk about our model. Our model is that on a weekly basis there are required participations in the class, learner-to-faculty, learner-to-learner. No one can sit in the back of the class and just listen and observe. It is only by active participation—all the research shows—that adults learn and retain effectively. And that is what I mean by active participation.

If you are going to be a Web designer, build a website. Don't read about building a website. Build a website and have people criticize it.

Senator ENZI. I know from my wife's courses, too, that they had the ability to talk back and forth while they were in class.

Now, you mentioned in your testimony that 55 percent of the Capella University students receive Federal financial aid. What will happen to these students if Federal financial aid laws are not amended or the demonstration program is not renewed?

Mr. SHANK. In the case of our university, we are a fully online university. These students would not be able to participate in Federal financial aid.

Again, if I could make one other comment about the significance of this, I stated that our studies indicate there are 120,000 students studying online now. And while traditional campus-based universities are providing online programs, I would very strongly assert that probably the majority, more than a majority of those students are studying at schools like Western Governors, our school, or other schools which are either purely online or will soon be more than 50 percent online. So for the online degree-seeking population, the 50-percent rule is very important.

Senator ENZI. Thank you.

Mr. Mendenhall, I appreciated your comment about or the explanation of how correspondence courses are different than the online courses. That was very helpful.

Now, I have heard detractors claim that distance education isolates students and provides limited opportunities for meaningful interaction. Do you feel this is true?

Mr. MENDENHALL. I think it is true in some cases. It is probably true on-campus in some cases, too, where, you know, in your undergraduate courses you go to an auditorium with 200 students and get lectured to by a faculty member who has an hour of office hours during the week.

In both cases, it doesn't need to be true. I think in particular the advent of the Internet into distance learning has provided us the opportunity to establish very rich interactions, as both Mr. Shank and Mr. Mayadas have testified.

We do not have students start and end at the same point at Western Governors University. It is start when they are ready and finish as they can. Nevertheless, every student is part of at least one learning community, mixed with students either in the same subject or from the same profession or from the same State, and several are in multiple learning communities. And they interact with other students via throughout discussion groups, live chat sessions. They exchange phone numbers and e-mails. Similarly, we have faculty members who are not simply teaching a course but are mentoring students through their entire program, and so they have access to a faculty member essentially 24/7. Obviously, faculty may not respond for 24 hours to a particular e-mail, but fairly fast response from faculty.

And we have had a number of students—I believe some of the quotes are included in my written testimony—who have suggested that the found the interaction richer and more meaningful to them than other campus-based programs that they have attended.

So I think it is dependent on the design of the program, but certainly we have the capability now to have rich interaction and collaboration in distance learning.

Senator ENZI. OK. Thank you.

One of the things, of course, that you touched on a little bit and that we are extremely interested in in this committee because of the No Child Left Behind Act that we worked on here and got passed, can you go into, in a little bit more detail, how the Western

Governors University is helping teachers to meet the requirement of being highly qualified?

Mr. MENDENHALL. I think this is a great example of distance learning. The No Child Left Behind Act essentially asked that paraprofessionals in Title I schools gain an associate's degree to continue to be employed and that new paraprofessionals had to have an associate's degree to be hired, and that teachers would have to be fully certified to continue teaching in schools.

We have 500,000 paraprofessionals in public education, most of whom do not have an associate's degree. They earn maybe $15,000 a year, have families that they are supporting, and the idea of them being able to quit work for 2 years and go gain an associate's degree at a traditional institution is simply not going to happen. We are either going to force them out of schools and out of the education system, or provide a much more flexible way for them to gain an associate's degree.

WGU offers an online competency-based associate's degree to these paraprofessionals that they can do at their own time and pace and hours that make sense for them. For most of our students, that turns out to be between 10:00 at night and 2:00 in the morning, where they do a lot of their studying.

Similarly, up to 40 percent of our teachers in big urban districts and in small rural districts are not yet certified. They are required in most States to be certified within 2 or 3 years, and yet there is no practical way for them to continue teaching and gain certification in a traditional classroom mode in that time frame, so, again, unless we can provide a more flexible online alternative to them, we are simply going to force these people out of the education system. And it is not clear who we would replace them with.

So we are offering, again, online competency-based teacher certification programs to these individuals.

Senator ENZI. Thank you. I would like both you and Mr. Shank to tell me a little bit more about some of the quality assurance measures that your school has in place and what the accrediting agencies that serve distance education ask for.

Mr. MENDENHALL. I appreciate that. WGU is somewhat unique in that, from the very beginning, we took a competency-based model to issuing degrees; that is, we do not measure student learning by how many courses a student takes or how many classes they sit through. We instead define the competencies we expect of a graduate and have developed assessments to measure that learning, which, as Mr. Shank said, are some combination of objective tests, performance tests, portfolios, doing as well as knowing.

All of our students are required to pass those assessments at a certain cut score to demonstrate mastery and competency in order to graduate. So our quality measure, frankly, is very straightforward. Either they have the competencies or they don't.

The accreditors have difficulty in that kind of a model simply because it is not the usual model. In general, the accrediting bodies have come in and looked at things like the governance of the university, the role of faculty, the development of courses, and, as I mentioned in my earlier testimony, sought to compare those with the way it is done in a campus-based institution.

We would suggest that an institution that is created purely for distance learning has the opportunity to start with a clean slate and decide what would be of most benefit in distance learning to provide quality education. Our faculty have a very different role than traditional faculty. Our measure of learning is somewhat different than simply seat time and credit hours. But we have found the accreditors very willing to work with us, to understand our model. We also have been accommodating to fit within their model.

I mentioned in my testimony that we have been accredited by both DETC, the Distance Education Training Council, and through a process of regional accreditation. And we found both to be equally rigorous. I suggest that if distance learning is going to be included as Title IV-eligible, that DETC ought to be a Title IV accrediting institution. They are not currently because they only accredit distance learning institutions, which aren't eligible for Federal financial aid. But they have a great deal of experience in that arena.

We found them to be just as rigorous as regionals but, frankly, a lot more timely. Their process is a one-step, kind of 1-year process. Regional accreditation is a three-step, 5-year process. And quite frankly, if you require a new institution to exist for 5 years without accreditation, you are going to do a lot to stifle innovation and creativity in higher education.

We believe that you can measure learning now and that Federal financial aid ought to be based on the quality of learning which can be measured rather than on the mode of delivery, which the 50-percent rule currently requires.

Senator ENZI. Thank you.

Mr. Shank?

Mr. SHANK. Senator Enzi, our model is different than Western Governors in the sense that we have an academic model that looks much more traditional than Western Governors does. So when it comes to academic quality of the students' work, the context here is this is a learner who is enrolled in a multiyear academic program, a series of courses. That learner is required to participate over this multiyear series of course multiple times a week, and so there is demonstration of work on a course interaction basis, on a regular basis.

In addition, every learned is required to submit a written demonstration of the learning outcomes, which may be papers, which may be class projects like an MBA course or an IT type of program. We do use some testing, but we tend to use less testing than is typical in an undergraduate program.

But when you are talking about a distance environment, you need to talk in a different paradigm about quality because adults have different expectations of what quality is. One expectation about quality is I am out there at a distance and I expect the faculty member to respond to me. And if the faculty member is not giving prompt response to my interactions, it is not a quality experience.

So we are monitoring, assessing, and working with our faculty about our expectations of the quality of participation, the responsiveness to the participation.

There is a whole other element of quality when you are dealing with adults, and that is, student services are as important as the

academic instruction going on. And, that is, can the access to financial aid be seamless? Because I don't have time to fool around with waiting in lines that happens in a traditional experience. We are providing all of that online, 24 by 7.

How good is the access to advising? If I get in trouble, how good is the university system to identify that I need help and reach out and help?

So when you talk about quality in distance education, you have to look at the service component as well as the academic component.

Senator ENZI. It must be quite a challenge for teachers in this, too, because a lot of the students have actual experience in the workplace. Some of the teachers may not.

[Laughter.]

Mr. SHANK. If I could issue one——

Senator ENZI. A bit challenging.

Mr. SHANK. If I could issue one plea—and we are talking about the important role of distance education in extending our teaching capability certainly in K–12. And as a result of Federal initiatives, we are spending billions of dollars, probably, on infrastructure and computers. We are spending peanuts on helping teachers teach effectively online. It is a terribly important subject for Federal policy.

Senator ENZI. I think there is some resistance or reluctance on the part of the teachers, too, because they are sometimes of a different generation than the ones primarily using the computers. So, yes, there has to be some additional help there, too.

For all of you, what are some of the safeguards—this is going to be a big topic when we get into the actual reauthorization—that are preventing student aid fraud and abuse. So what are some safeguards that are currently in place or ones that you would suggest for us to counter that with? Mr. Mayadas?

Mr. MAYADAS. Our thought there would be that an accredited institution—and, first of all, I agree with what has been said. Accreditors must move in the direction of more outcomes measurements. I think some input measurement is okay if it is written in such a way that it is equally applicable to the distance, and the campus environment can be worked through by either side. But then outcomes are very important. Accreditors want to do that. What they are doing right now is throwing it over to the universities and saying you tell us what are the appropriate outcome measurements, and I think some more effort on the parts of universities to create these outcome measurements will help drive that process.

But I think an accredited institution and outcome measurements are a pretty good safeguard. If you are not accredited or on the list of approved accreditation agencies, you are not in business to get Federal aid. That is how we would look at it.

Mr. SHANK. In our submission, we proposed a criteria that there is required interaction and that there be faculty leadership in the courses. Now, the danger with this is—again, I am not knowledgeable enough to know how this matches up with a model like Western Governors. But we are not confident that we know enough about self-paced education right now to understand the effectiveness in a degree environment.

We also have raised the concept—and, again, I will admit this is from our limited perspective—that much of the prior fraud in the financial aid assistance had to do with correspondence programs around vocational programs. And it does seem to us if you focus on accredited, degree-granting institutions, that will be an important safeguard that does not create broad windows for fraud.

Senator ENZI. Ms. Ashby?

Ms. ASHBY. I would tend to agree that accreditation is very important. What we don't know yet is how well the accreditation process is working. And as I said in my statement, part of what we have been asked to do for your committee and for the House Committee on Education and the Workforce is to look at the accreditation process and see how well it is working and see if there are recommendations that GAO might offer to improve the process.

If the process is working effectively, I think it is a powerful means of ensuring quality and accountability on the part of distance education institutions as well as other colleges and universities. Outcomes measures are very important, but outcome measures in the absence of some third party looking at how those outcome measures are determined, how the records are kept, internal control procedures within the institutions and so forth, is a lot less meaningful.

So I would agree with accreditation may be an important part of the answer. I don't know if it is all of the answer.

Senator ENZI. Thank you.

Mr. Mendenhall?

Mr. MENDENHALL. The 1992 Higher Education Act in effect put a ban on use of Title IV student aid for distance education institutions, and that was a reaction to the fraud and abuse from correspondence schools and others in the 1980s. Since that time, there have been over 100 changes in the law and significant changes in the administration of financial aid, which we believe applied not only to distance learning but, obviously, to other institutions. And those same law changes applied now to distance learning ought to be sufficient as the law currently exists to curb that kind of abuse.

I think the goal for Congress in the Higher Education Reauthorization Act is actually to encourage innovation and creativity in higher education, to encourage the use of distance learning and alternative forms of education.

We would be concerned about regulations that basically dictate a method of learning or a mode of learning or certain attributes that have to be there as opposed to simply measuring the quality of learning that is taking place. To do otherwise is to suggest that we have figured out exactly what constitutes good learning and that no other model would be acceptable. And I think we are still learning a lot about what constitutes good learning.

Accreditation, I agree, is also one of the safeguards. My feeling is that it needs to be more timely. If, in fact, again, it takes years and years for a new institution to be accredited, most of them will drop out of the race long before they can prove their success. But I think the inclusion of a group like DETC, which has experience in distance education and has a thoughtful and timely process would be an important addition to the accreditation process, par-

ticularly in distance learning and in curbing fraud and abuse in distance education.

Senator ENZI. Mr. Mayadas?

Mr. MAYADAS. I would support Bob's comment that even though the four-credit degree-oriented education online in the country today is hugely tilted toward instructor-led cohort-style classes, as I described—maybe 98 percent of these programs go that way—that should not be a necessity. I think there may be different ways to do it. It is an economic question. Sometimes you can spend a lot of money to create a very good learning interface. Learning materials and so on may require less instructor interaction and all that. So we shouldn't rule that out. I think there is a real possibility that different ways of learning will emerge and we ought not to paint ourselves into a corner. I think the outcome measurements are the thing that remain constant.

If I could just comment on one other thing that you had asked earlier about the learners who have financial aid right now, I just wanted to say that a number—in our experience, a lot of the distance education students are special cases, for instance, the Army case where their tuition is paid for; in the example I cited. The NACTEL example, the collective bargaining agreement between the companies and the union ensures that the companies pay the tuition in that case.

So when you look at the average citizen, I think we will run into a wall with this 50-percent rule because we are beginning to see a certain number of traditional institutions that are getting their distance education, online education courses up around the 50-percent level. And that is going to be a problem over there.

Senator ENZI. Thank you.

Mr. Mendenhall, in your written testimony, you suggested that new institutions are better suited to distance learning than existing universities. Why do you believe that? Would you expand on that a little bit?

Mr. MENDENHALL. Well, I think there are some existing universities who are doing a great job of distance learning who have created separate units to go focus on distance learning. But, in general—I think this is true in every field, not just in education—if you look at industry in general, usually innovation requires new companies. Certainly in the technology field, the new innovations have spawned new companies. And the reason for that very simply is that existing institutions have an installed base to protect and, therefore, can't innovate at the pace of a new institution.

In the case of education, no existing institution is developing distance learning programs without considering their effect on classroom enrollments. Each of the existing institutions has a faculty senate with a long history of we will not create new programs without approval of the faculty. And the faculty, therefore, have significant voice in we want these programs in certain formats and in certain directions, and we don't want it to change our traditional role or pay or other kinds of things.

We have found, in creating a new institution for distance learning, that we are able to redefine the role of faculty. For example, at our institution, faculty are much more mentors of students through an entire program rather than instructors for a particular

course. Their incentive is to help students learn, not to conduct research, which is an important part of many existing institutions.

As Mr. Shank said, student services are very different on an online distance learning institution. We understand that these are adults who shop on the Internet, who use the Internet for a variety of things. They expect services to be available 24/7. Traditional institutions are still very much a 9-to-5 kind of effort.

So I am simply suggesting that real innovation in every field generally results in new institutions who rethink the enterprise from the ground up and design it to maximize the delivery mechanism that they are using. And, in fact, we find that today in education, I think, with innovative programs from purely distance learning institutions.

Certainly to cut out the pure distance learning institutions simply because they chose that mode of learning I think would be short-sighted and would discourage innovation in higher education.

Senator ENZI. Another question I have to ask, too, is that I know that all the Governors that created the Western Governor University all have universities. We have less in Wyoming than anywhere else. But why did they create this? And what makes it different from the universities that they have in their States already?

Mr. MENDENHALL. I think if you talk to the founding Governors, it was primarily an economic development, a workforce development issue. They were disappointed, to some extent, in the responsiveness and innovation of State institutions. They were getting an earful from companies in their States about not being able to get the workers prepared and trained in a way that was adequate. And particularly the emphasis on competency-based education was an effort by the Governors to create an education system that would be responsive to the competencies that their businesses were asking for and prepare a workforce and re-prepare a workforce, that is, provide an education to adults that were not being well served by traditional education.

The other clearly was the access issue in rural areas. These are Western Governors who understand that a large portion of their population lives an hour or 2 hours or more away from any traditional kind of university and simply wouldn't have access to education in any other way.

And so WGU was really set up to share distance learning resources, to expand access, and to establish this competency-based model of education that would be responsive to the needs of industry.

Senator ENZI. Thank you.

And for each of you, is there some question that I should have asked—now, I am going to leave the record open for another 7 days and my colleagues will be submitting questions that I hope you will share answers with, and I even have a few other questions here, too. But I will give each of you a chance to make an additional statement or to ask a question and answer it. So, Mr. Mayadas, do you——

Mr. MAYADAS. I just wanted to add a bit to what Bob Mendenhall had said about the new institutions perhaps being more creative in distance education than the existing ones. I would deviate a little bit from what Bob said in that I think it is a matter of motivation

on the part of the institutions. The ones that are really motivated are going to do well, and I can tell you that in our looking around, we find community colleges to be—they have got their ears to the ground. They know what their customers want, and they do a great job on very skimpy resources.

When you look at the highly elite institutions, you don't see them much in the picture. So it comes down to the particular economics and the particular motivation. State institutions tend to get motivated when their State Governments encourage that, and most of them have done that and have made it easier for them to get into this kind of thing.

Some private institutions are very highly tuition-driven. That is how they exist. Those institutions are going to be creative and innovative because this is how they will survive. They need more enrollments. So it is going to be a very mixed picture, I think.

Senator ENZI. Thank you.

Ms. ASHBY. There is no particular question that I would say you have not asked, but I will reiterate what we said in our formal statement and what I said in my opening statement and what I think you or Senator Wellstone said earlier. What we need is a balance. It appears that distance education provides a good opportunity for a lot of students who would not have access to higher education, and certainly access is one of the goals of not only the legislative and executive branches of Government but GAO recognizes the importance of access. And that is one of the things that we focused on for many, many years in terms of the student financial aid programs.

But we also need controls, internal controls. They are a lot more boring than distance education, I know, but they are important. And I think in order for you to sell your programs more widely, the last thing you need is some institution to come along and commit fraud and make the headlines. So I think we all do agree and we all are working for the same thing, but in reauthorizing the Higher Education Act, please, take into consideration the importance of controls, the importance of accreditation. We will be able to give you more information about that later when we finish our work. That is, I think, right now the unknown from our perspective. We realize there are a lot of accrediting agencies. We are not certain to the extent that they have been able to apply their craft to distance education. And so that is a caution that I would put forth.

Thank you.

Senator ENZI. As the only accountant in the Senate, I appreciate that accountability factor that you just added.

Mr. Shank?

Mr. SHANK. Two comments, and I don't know that you have not asked any questions that are important, but two comments: one about the role of traditional campus-based schools in extended distance education. I think do to some extent agree with the comments that Mr. Mendenhall made, but I would offer a little bit different perspective in that we are talking with 2-year colleges across the country and actually some 4-year colleges about joining in collaborative degree-granting relationships to work with those institutions to extend their reach.

What we are finding is many of these schools know they need to do this to achieve their missions and to reach adult learners, but either they don't have the internal change environment but they don't have the technology resources or the financial resources.

What I believe we are going to see happening here is growing collaboration with a virtual university like ourselves and some land-based universities. That could produce really good educational results.

I think there are probably issues in the Title IV framework as to how easily that collaboration can take place if a student may be sharing an experience between a land-based and a virtual school, and that may be an important issue to look at.

I would also say something about what Ms. Ashby just said. I really think that, in addition to the financial aid issue for distance education, the issue of recognition of quality is our most important issue to achieve the potential here. Frankly, the biggest question we get is not a question about fraud, but what will employers think of the degrees of the graduates? Will it be recognized?

So if all of us could advance this subject, that real education and real learning is going on here, this will be a more and more powerful tool looking into the future.

Senator ENZI. Thank you.

Mr. Mendenhall?

Mr. MENDENHALL. I would like to comment in closing on the demonstration program that is being conducted by the Department of Education in terms of extending financial aid programs to distance education institutions. I think an interesting question for the Congress is how has that gone and what success has it found.

We were one of the original institutions included in the demonstration program, and, again, financial aid is a very important component to our students. I think you will find our students as a whole use it as a slightly smaller percentage because many of our students are being paid for by their employers, as was mentioned earlier. But for those who are not being paid for by their employers, they need Federal financial aid as much as any of the other students in any of the other programs.

We worked very closely with the Department of Education to define satisfactory academic progress, which is a measure of students' moving through the program, and limits the funds made available to students, to those who are making satisfactory academic progress. And I would just recommend that, as part of the reauthorization, the demonstration program not be continued but be made permanent in the sense that the Department be given the flexibility to adapt its rules and regulations to institutions that look a little bit different, that have a different methodology. We were very different because financial aid is typically based on credit hours, not on learning, and we were able to create it based on learning objectives.

But I think that they have found in that program the ability to give Federal financial aid to distance learning students and not run significant risks of fraud and abuse. And, hopefully, those powers will be extended further to the Department.

Senator ENZI. Thank you. I want to thank all of you for your excellent testimony and answers to the questions, and I want to as-

sure you as we move on in this process that the information you have provided will be used, and you will probably hear some quotes in some of the debate because it has been that valuable. And you will also probably be receiving some additional questions so we can kind of fill in a few more of the blanks.

Thank you very much for your participation today. The record will stay open for 7 days.

[Whereupon, at 11:28 a.m., the committee was adjourned.]

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